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Quantity and Value of the Manure of Cattle.

Several inquiries having recently been made as to the *quantity* of the droppings or solid excrements of cows and cattle during the winter months, and as to the *value* of the same, we have been induced to make some researches upon the subject, with a view to ascertain what *data* have been put upon record, or given to the public, in the form of facts or careful experiments and accurate observations bearing upon the questions named. *Such* facts, it will be readily admitted, are the only safe and reliable foundation upon which correct opinions upon this subject can be based, and they form also, the best or only valuable test whereby the truth and practical value of any *opinions* upon the subject can be determined. These considerations have induced us to prefer the task, to the much easier one of stating our own *opinions*, or those generally received in regard to the matters of inquiry. That all interested may have an opportunity of forming their own opinions, or deducing their own inferences, as also of bringing any opinions which they may meet with, in their reading or conversation, to the true touchstone or test, we proceed to the statement of some of the more valuable of these facts which we have been enabled to collect.

In the third volume of "*The Agriculture of New-York*," by EBEN. EMMONS, M. D., we find an account of some experiments undertaken for the double purpose of ascertaining the influence of food on the quantity and quality of the milk of a cow, and on the quantity and quality of the solid excrements. The cow employed in the experiments, was a small one, of the variety called the Dutch breed, her weight being, in November and while yet at grass, 800 lbs. On being confined to the stable, she ate from 21 to 27 pounds of good hay per day. The amount of hay consumed in one week, last of Nov. and first of Dec., was 155 lbs., or about 22 lbs. per day. The water drank during the same week amounted to 298 lbs. and 12 ozs., or a little over 42 pounds per day. The solid excrements amounted to 309 lbs. and 8 ozs., or a little over 44 lbs. per day.

A calf of this cow, 7 months old, and weighing 348 lbs., fed in the same way at the same time, ate of hay 85 lbs. and 4 ozs. in seven days, or about 12 lbs. and 3 ozs. per day; drank during the time 120 lbs. and 12 ozs. of water, equivalent to 17 lbs. per day; and made 144 lbs. and 11 ozs. of excrement, which is equivalent to a little over 20 lbs. per day.

For the purpose of comparison, it is stated that a large horse consumed 31 lbs. of hay per day, and made solid excrements to the amount of 62 lbs. and 8 ozs. during the same period.

In the first volume of the *Journal of the U. S. Ag. Society*, we find a short paper giving an account of some experiments in feeding by JNO. BROOKS of *Princeton, Mass.* The experiments were instituted to determine the comparative value of different kinds of food for producing milk, and the proportion of solid manure to that of the hay consumed. The former we omit, and give the latter only in a condensed form.

Several cows, heifers, and calves, weighing in all, live weight, 14,567 lbs., were fed five days on 277 lbs. of cut hay daily. They drank daily 887 lbs. of water, and dropped daily 668 lbs. of solid manure. The proportion, in this experiment, between manure and hay, was 2.41 lbs. of the former for each 1 lb. of the latter consumed.

A second trial of five days with the same cattle, gave the following results:—Hay per day, 352 lbs.; Water per day, 868 lbs.; Manure per day, 860 lbs., or 2.44 lbs. for 1 lb. hay consumed.

A third trial was made with another set of cattle, whose live weight amounted to 9472 lbs., with the following results:—Hay, cut, per day, 240 lbs.; Water, per day, 542 lbs.; Manure, solid, per day, 594 lbs., or 2.47 lbs. of manure for 1 lb. of hay consumed.

The average of the three trials gives 244 lbs. of manure for 100 lbs. of hay.

In reference to the researches which we have instituted to determine the *quantity* of manure made by cows, cattle, &c. per day, week or year, it seems of some importance to remark that the determination of this point has hitherto been but seldom attempted, and that when it becomes a matter of interest, in a pecuniary or any other point of view, to ascertain it even approximately, the *data* for so doing cannot readily be found. Nevertheless the occasions are not unfrequent when it would be a matter of considerable importance to determine the amount of manure which the various animals on the farm are capable of producing. "As yet, however," says Prof. ANDERSON in the Trans. of

of the Ag. Society of Scotland, "we are singularly deficient in precise information on this point. There are numerous analyses of farm-yard manure, and a few of the dung and urine of different animals; but so far as I know, the experiments of BOUSSINGAULT are the only ones in which an attempt has been made to determine the quantity of the different constituents of the dung and urine which are produced in the course of twenty-four hours." Upon the suggestion of Prof. A. this point was attempted to be determined by a large dairy farmer, according to whose observations a cow of the average size yielded 27 lbs. of dung during the night, and 33 during the day, or 60 lbs. in all. This was found to be the average quantity over a pretty long period. The quantity of urine in the twenty-four hours, according to the same observer, was 18 lbs., and a gallon was found to weigh 11 lbs.

It was our intention in reporting the results of our researches in respect to the quantity and the value of the manurial matter furnished by cows, cattle, &c., to keep these two things distinct and apart, and to finish our reports as to *quantity* before commencing with those which pertain to *value*. But as the analyses, made by Prof. ANDERSON, of the manurial matters whose quantity has just been given, are given in brief space, and may be more interesting in *immediate connexion* with the statement as to quantity, saving, also, the trouble of repetition or reference in the future, we have concluded to make a statement here of the results of his analyses, and of his estimates of the value, as a fertilizer, of the whole of the manure furnished by a cow of average size during a year.

Taking, then, the above data, the quantity of the principal substances, possessing manurial value, yielded in each day or twenty-four hours, appears to be as follows:

Ammonia.

In the urine	511.8	grains.
" dung,	1470.0	"
Total,	1981.8	= 4.33 ounces.

Potash.

In the urine	1279.2	grains.
" dung,	420.0	"
Total,	1699.2	= 3.80 ounces.

Phosphoric Acid.

In the urine,	24.6	grains.
" dung,	1204.6	"
Total,	1228.8	= 2.81 ounces.

The other chemical constituents of this manure have so small a value, that it seemed scarcely necessary to take them into account in estimating its value as a fertilizing agent. Taking, then, the above quantities of these more important constituents of the manure of cows or cattle,, and multiplying them by 365, we obtain as the yearly product,—

Of Ammonia,	103.3 lbs.
Potash,	88.5 "
Phosphoric Acid,	64.0 "

If now we take the ammonia at the price attached to it by Prof. S. W. JOHNSON, in his artiele on Fish Manures in our last year's volumes of Co. Gent. and Cultivator; the phosphoric acid at the price attached to it by the same gentleman; and the potash at six cents per lb., the annual value of the excretions of one cow will stand as follows:—

103 lbs.	of ammonia (fractions omitted,)		$16.48
88 "	potash " "		5.28
64 "	phosphoric acid,		1.28
Total value,			$23.04

As Prof. JOHNSON admits, however, that his estimates may be conformed a little more closely to those which prevail in England, let us calculate according to the latter, and we obtain a valuation as follows:—

103 lbs.	of ammonia, at 12 cts. per lb.,	$12.66
88 "	potash, at 6 cts. per lb.,	5.28
64 "	phosphoric acid, at 3 cts. per lb.,	1.92
		$19.86

In round numbers, the annual value of the dung and urine of a cow, according to these analyses and estimates, ranges between $20 and $23.

Leaving remarks upon these estimates of the annual value of the manure yielded by cows, cattle, &c., until we come to treat the subject of value, we will now conclude our observations upon that of quantity, so far as the experiments we have reported furnish *data* for conclusions. Experiments and observations with a view to determine this matter have been seldom made, or at least seldom given to the public, for those which we have reported are all that we have found, at least in any detail. In JOHNSTON'S Lectures on Agricultural Chemistry, we have found, indeed, some results of similar experiments or observations in a tabulated form, but none with any details as to particulars. The observations by Block, there referred to, agree very nearly with those which we have reported, making the consumption of 100 lbs. of hay to yield 275 lbs. of fresh manure. In the observations we have reported, the proportion of manure to hay ranges from 200 to 247 lbs. for each 100 lbs. of hay consumed. For facility of calculation it might be considered as nearly correct, that for each pound of dry hay consumed two and a half pounds of solid manure will be produced. Now, as cows and cattle under the weight of 1,000 lbs. will consume on an average about 25 lbs. of hay, or the equivalent thereof, per day, the product in manure will be about 62½ lbs., or very nearly what was found to be the average of a medium sized cow as reported by Prof. ANDERSON. Larger animals will consume more food and yield a larger quantity of excrementitious matter, but about in the same proportion.

For facility in calculations, and as an allowance for the diminution of weight caused by the drying up of some of the watery portion of the droppings, it would be near the reality to reckon the solid manure of a medium sized cow or ox at 50 lbs per day, or four and a half tons during the six months of winter.

Cement Water Troughs.

MESSRS. EDITORS—Since my former article to you on concrete blocks of artificial stone for building, (Co. Gent., vol. ix, p. 131) it has occurred to me that among the various uses of concrete about a farm-house, an excellent water-trough may be made of it. Lay a solid stone foundation in the middle of the barn-yard, *set* a cement bottom; then with an outside and inside board suitably arranged, build up the sides and end of the trough—build to proper height, smooth off the upper edges, line inside with hydraulic cement, round off with cement the inner angles, let it dry, and you have a perfectly indestructible cleanly watering-trough—costs but a trifle, lasts forever, and cattle wont gnaw off the edges—lime, sand, and small cobble stones. J. E. S. *Barre, Mass.*

POTATOES—I have seen several notices of amounts of potatoes raised from a given quantity, and thought perhaps it would not be uninteresting to hear from a subscriber in Illinois, whose facts are far ahead of any statements yet made in your paper. I planted in native prairie soil, (it being the first crop, and without manure,) one pound of potatoes last spring, from which I with ordinary culture, harvested in the fall two hundred and thirty-nine and one-fourth pounds of a good marketable quality. The actual yield was some more than this, as a few were frozen and thrown away when dug. This, you will perceive, is nearly 240 bushels for one planted. The name I cannot give you; they are white and of a proper size for cooking purposes. O. H. HAZARD. *Freeport, Ill.*

Advice in Farming.

A farmer in Chester Co., Pa., who has a good farm of 92 acres partly paid for, informs us that he finds his family expenses annually increasing with a growing family, and that it requires exertion and economy "to make both ends meet." His land yields about sixty bushels of corn per acre, 15 to 25 of wheat, and 30 to 50 of oats.

He inquires, first, as to the propriety of removing west, but dislikes to break up time-honored associations. On this point he is the best judge—we may merely remark that, a western residence has its advantages and evils; its advantages are cheapness of purchase and fertility; its disadvantages are, remoteness from market, and consequently low prices; scarcity of labor; deficiency of timber in many places; cost of removing; and if new land is bought at a low price, the cost and labor before all the desired household and farm buildings are provided. On the whole, the advantages of each appear *generally* to be about equally balanced; and if the same degree of economy and labor were practiced at the east, as necessity alone impels at the west, about equal results would be obtained.

He inquires, secondly, as to the probable profit of the following mode, namely, to convert his farm chiefly into grass land, and render it as productive as western prairie. Instead of selling, as heretofore, all the grain he could raise, he proposes to buy all and raise no more except corn and millet for cattle feed—to keep but few animals before harvest, so as to save plenty of grass for hay—and to buy a heavy stock of western steers early in autumn, to fatten, and sell again in winter. He thinks that by chopping his fodder, grinding the grain, and steaming the food, he may fatten from 50 to 100 head yearly, and get from 20 to 40 dollars advance on each. He would thus secure a large amount of manure, and by the addition of bones, keep the land in the best condition. Most of the labor would be done at a season when labor is cheap. He wishes to know the value of cooking food for cattle.

So far as we may judge, we would not advise so sudden and complete a revolution in the existing mode of farming. Untried systems should always be adopted cautiously, until actual trial proves their value. It is best in all cases to feel one's way. There are often unforeseen difficulties, not discovered till a full experiment is made. Our correspondent has not probably kept enough animals to maintain alone the best condition of his land; and now he proposes the other extreme. Mixed husbandry, well conducted, is always the most profitable. But it is better to have too many than too few animals. An average of 60 bushels of corn per acre, and of 20 bushels of wheat, as with the present management, are fair crops, and we would not discard a wheat crop of this amount, with increased means of fertility. The experiment may be tried the first year with ten or fifteen western cattle; and if not so successful as expected, there will be something to fall back upon; but if the experiment proves profitable, the number may be increased—but in any case we would not discard a proper proportion of grain crops. The success of fattening the cattle will depend on the relative prices of the western animals, and of the same after they are fattened; and fluctuations in these prices might in some years reduce or even destroy all the profits.

Experiments have been made with steaming or otherwise cooking food for cattle, but they have not warranted the expenditure in fixtures, labor and fuel. Cutting and grinding have however proved of much importance. Cooking food for swine, unlike that for cattle, has been found to greatly increase its value.

Renovating Old Pastures.

MESSRS. EDITORS—How to renovate old pastures, is becoming daily a more important question to us Connecticut farmers, on poor, stony, hilly land; and we must find some better way than has been in use heretofore. Will you or some of your correspondents favor me with advice.

I have 50 to 60 acres of hill pasture, with a constant tendency to white-birches, briars and brakes, and wish to adopt some method of renovating a part of it yearly, but am much at a loss how to do this. The soil is not as poor as usual hereabouts, and has a kindly eastern exposure, sheltered from cold winds; but it is remote and somewhat difficult of access, on a steep rocky hillside. My predecessor drew manure up the long hill, and by dint of hard labor, obtained a decent crop of corn. Part of the land was under cultivation two or three years, was then seeded down, and is now (some five years) very indifferent pasture. Some parts are too rocky for plowing, but these are usually moist with springs, and, I hardly need add, grow fern and brake faster than I can cut them. The distance and the difficulty of access forbid the use of stable manure, even if it could be spared for the purpose, and I seek some other means of renovation. Ashes I can procure—both leached and unleached—at a cost of about 15 cts. per bushel; and also some quantity of *horn dust* and shavings, but these latter are of course expensive. The land would perhaps start a small crop of buckwheat, rye, or even clover, and various methods of green manuring have occurred to me, as sowing clover, using plaster and ashes freely as soon as well up, then plowing in early, in hope of a second crop; or sowing rye as a second crop for spring pasturage; or turning hogs on the clover before plowing in, and getting a crop of turnips.

Clover is, I think, our best green manure. Rye has not to my knowledge, been used here in this way, and my experience of buckwheat is unfavorable.

Is it best to continue green manuring for two seasons, or to plant hoed crops the second year? Shall I use ashes solely as a top-dressing, or plow it in? And in what quantity? Will it pay to use guano or horn-dust, and if so, how shall they be applied? I do not care to raise crops on this land, as I have more close at home than I can keep in good heart, though my resources are more ample in way of manures than usual in the country, but I desire to keep it in pasture with the least expense or care. Perhaps I ought to state that our subsoil is very open—gravel, or often round stone, more seldom sand, requiring constant renewal of manuring, and for grass land, re-seeding, every two or three years. H. C.

In plowing under clover, we would recommend that it be done the second year, or the year after seeding, and that ashes and plaster be used in connection with raising clover. Guano may be tried by way of experiment, and is best applied as a top-dressing in autumn, but may do if sown very early in spring, or as soon as the frost is out. Two or three hundred pounds per acre will do to begin with. Ashes are high as a manure at 15c. per bushel, and at this rate we would not propose more than 30 or 40 bushels per acre. It may, like guano, be applied as a top-dressing, in autumn, winter, or early in spring. A portion of stable manure may be used in connection with these fertilizers, but it should be applied in autumn as a top-dressing and finely spread, so as to become thoroughly soaked into the soil by the commencement of growth. Horn dust should be plowed in when used, and must be looked upon as an experiment merely, although it has often produced a great increase in growth. There is no crop nearly equal to clover for green manuring,

but probably a year or two of other crops should intervene before re-seeding. We are inclined to think, however, that scarifying and top-dressing with manure, guano, ashes, plaster, &c., with heavy re-seeding when necessary, may be sufficient. However, there is so much difference in soils, &c., in different localities, that a trial only can determine this point.

Roup in Poultry.

This insidious disease, which carries off so many fowls, is evidently analagous to the distempor in the dog and the horse. It is a species of influenza which generally arises from exposure to cold and wet, after having been previously, perhaps, too much protected from the same. It is for this reason that fancy fowls which are too well taken care of, are so often affected by it. We say too well taken care of, because considerable experience has taught us that confining fowls in a warm place, without much circulation of air, is far more injurious than ordinary exposure. By all means let them have a shed with a good roof to keep them dry, and with a southern exposure; but do not shut them up in a warm room where they are obliged to breathe the same air again and again. This is of itself sufficient to produce disease, and often causes Roup. There can be no doubt that the Roup is contagious, and perhaps also infectious, as fowls have been known to exhibit symptoms of it very soon after being put into yards from which other sick fowls had been removed. Drinking out of the same vessel with other fowls who have it, should if possible be prevented. A small piece of assafœtida should be kept at all times in their water. All fowls are fond of it, and its effects on them both as a prophylactic and otherwise are good. The symptoms of Roup are almost always, running at the nose, though like an ordinary cold in the human species, it takes two forms, and settles either in the head or in the throat. It frequently commences by running at the nose, and after a while leaves the head altogether for the throat. In half grown chickens it frequently attacks the eyes until they suppurate and are entirely destroyed; and this may be the case with older fowls. When there is from the first no running at the nose, but the disease is entirely in the throat, the first symptoms will be a hacking noise made by the fowl, the result of an endeavor to clear its throat of the phlegm which is there collected.

The remedy, and the only effectual remedy, is a solution of alum in water, or what is better, of alum in vinegar and water, or pure vinegar unless very strong. The vinegar acts as a detergent in clearing away the phlegm, while the alum acting as an astringent upon the inflamed mucous membrane, produces at once the most beneficial effect. Other medicines which have been highly recommended have no doubt a good effect, chiefly as alteratives, among which calomel and sulphur are the best, but this application arrests the disease at once, and we have seen fowls which were almost strangled relieved by the first tea-spoonful. The alum should be finely pulverized and then the vinegar and water saturated with it. If the disease attack the nose and eyes, use the same remedy: wash the roof of the mouth and the nostrils with the solution, and as in the first instance pour some into the throat. Two extensive poultry breeders of our acquaintance, find turpentine effectual in this disease, putting it in the water which the fowls drink and dropping a little on the head, in the nostrils and in the roof of the mouth, when the purulent matter will be found collected so that it can be easily removed with a stick. Turpentine is an effectual preventive of the gapes, and we have found it beneficial in the roup, but there is nothing so powerful, so instantaneous, and so effectual in checking the progress of this dreadful disease in all its forms as a saturated solution of alum in vinegar and water. H.

The Thorn for Hedges.

EDS. CULTIVATOR AND CO. GENT.—That the want of fencing materials for farming purposes, is on the increase, with the division of larger estates into smaller ones, and the necessity for closer and better tillage, is evident. Where there are stones sufficient for this purpose, probably nothing will supercede their use. In certain localities, however, the materials for making enclosures forms no small item in the expenditure of the farmer. Much labor is required in all cases.

In the Jan. No. of THE CULTIVATOR, Mr. RUDISILL makes an inquiry as to raising the common thorn from the seed. The answer of A. B., in the same No. is no doubt correct as to the English thorn, and would apply to all the species, as it is probable their seeds are alike of a bony hardness; but the process seems more tedious than necessary. If the common thorn is as frequently found in Mr. R.'s region as it is here in neglected fields and along the roadside, I would suggest to him that the berries or fruit be gathered when fully ripe and mixed with fresh cow manure and placed in a sunny spot in order to undergo a fermentation; letting them remain also during the winter exposed to the frosts. By this process I should think the seeds would sprout in the spring. I have not tried this plan, but judge it would be successful from the fact that I have observed young sprouts or seedlings rather, shooting up from the fecal deposite of the cow. Whether the fruit had been eaten or accidentally placed there, I think would make no difference. I have no doubt that the succeeding fermentation, together with the alternate thawing and freezing during the winter, would cause the shell to crack, and allow the kernel to germinate.

One other suggestion. Try the cuttings. From the extreme hardiness of the plant, and the tenacity with which it retains life, the slips would very likely, with a little care, strike root, and if so this would be the speediest way of getting the plants.

As to the value of the thorn for hedges, it is, I think, undervalued or overlooked. Other things being equal, the plant which is indigenous to the locality in which it is required, is the best. The English plant, not being a native of this country, although to a small extent naturalized, could not be expected to thrive here as well as in its more even tempered nativity. If I am rightly informed, practice proves this view to be correct. Should it prove perfectly hardy, there is nothing in other respects to commend it as superior to our native species. Of these last, there are six species described as being indigenous to the northern and middle states, each of which embraces many varieties, or slight shades of difference. Like the apple and pear, to which the thorn is closely allied, there can hardly be found two seedlings alike in habit of growth, fruit, foliage, &c.

The Cockspur thorn is said to be the best species there is in this country for hedging. My opinion is that any of them, which are armed with spines or thorns, will make a better hedge, (where they are found growing naturally about waste places,) all things considered, than any other plant with which I am acquainted or have heard of. Any person who has seen a full-grown tree, could not doubt but that a hedge formed of them would be a thorough protection against man or beast. Its size, sturdiness, and habit of growth, (the branches putting out near the ground, especially if clipped at the top,) are all that could be desired as to hardiness. They are found growing in all situations and soils; and it is rare to see one dead, either from situation, or from the ravages of mice or insects, or any other cause. They do not sucker unless the roots are out of the ground. The fact that animals brouse upon the young shoots would be no objection when the hedge has got to the proper height.

I have a few rods of the common, and also a few rods of the Buckthorn. Being unable to get the for-

mer from the nurseries, I went to the fields and had the roots dug up, first cutting off the tops about two inches from the ground. Not having much time to oversee the work, the roots in part were almost destitute of small fibres, and they were carelessly planted in the spring. The following summer, being the extremely dry one of 1854, I supposed they would all die, but to my surprise not one in a hundred failed to live. It now gives promise of making me a good hedge, with very little trouble to keep in repair.

There is one other plant which I have thought might form a good hedge on small premises, about gardens for instance, and that is the Prickley Ash I intend to transplant a few in the spring, to see how they will bear clipping with the shears. G. P. R. *Goshen, N. Y.*

My Artificial Stone House.

EDS. COUNTRY GENTLEMAN—I wish to say some words to your readers upon the best and cheapest material for building houses, and the mode of use. I like the material used and recommended by FOWLER and others—artificial stone walls, made of lime, sand, and stones—that is, cobble stones, fragments of brick, coal cinders, &c. But I object to the usual method of using it in what are called "grout" houses, cement houses, &c. It is sloppy and annoying work to build it up in troughs, as is usually done. The fluid runs down over the walls, and each layer does not harden fast enough to build on, as soon as is often wished.

I use the same material, and propose to obviate these objections by a neater and pleasanter mode of use, which shall be easier and stronger work than the usual mode. I make my material into blocks of stone, and build my house of these. Thus, make cheaply some 20 or 30 boxes, of sides only, without top or bottom, of proper size, say two feet long, one foot high, and 14 to 18 inches wide. These are the dimensions of the future blocks. Make up, of a morning, sufficient material in a bed, fill up all the boxes, smooth the tops, and go off. Next morning lift off the boxes; let the blocks stand to dry and harden; set the boxes in a new place, and fill up as before. Do this under a shed, or if out-doors, cover over the blocks during the first rains, and they will soon harden enough to use. In this way any Irishman may, in twenty-five mornings, at 50 cents or less, each, *hew out* stone enough for a large house.

Then build your house, as any one would, of stone. The blocks for first story may be 14 or 16 or 18 inches wide, and for second story, 10 or 12, narrowing the mould boxes by nailing a board or two inside, or sawing the ends narrower. Walls so built are dry; but they may be made still more so, and warmer if possible, and still cheaper, if any one *could* wish it, by putting a wooden cylinder or two into the mould-box, and knocking it out after the box is lifted off, thus making dead air in the wall. Besides this, the wall is of course to be furred and lathed and plastered inside. Of course some blocks are to be made solid, for corners and ends of the walls.

Given the dimensions of your house, and one can easily calculate the number of blocks needed, and any farmer's boy may make them.

In laying the wall, if, in order to bring a flush wall for door or window, it should be necessary to leave a few inches between some blocks, the space may be easily filled by pieces of brick or regular stones well mortared in.

I commend this as the *best* plan for building a cheap and durable house—better than brick, as good as stone, and lasts forever. If nice finish is needed, cement and color the outside wall, and lay it off by lines, like stone, as indeed it is.

If any one doubts this plan, try it on a smoke-house, or hog-pen, or shed of any kind, or, indeed, a stone wall.

No rats infest this house, no storm can shake it, no wind whistle through it. Dry, tight, warm in winter and cool in summer, it is the cheapest, strongest, and best.

A good proportion of the ingredients which FOWLER and all others recommend, is—say 10 bushels or barrow loads of lime, 20 of sand, and 70 of stones, &c., and any quantity of water. I take it for granted your readers understand something of the gravel wall plan. I write merely to advocate the block stone plan—the same material, but in different shape. One can see how cheap must be the walls of a house with only one-tenth lime, and that so cheap, and the other materials nine-tenths, which costing nothing. J. E. S. *Barre, Mass.*

Best Time for Pruning.

MESSRS. EDITORS—The inquiry made by E. DENNISON at page 31 of this volume, "Which is the best time to trim?" is—(as of course we must suppose he means by "*trim*," "prune")—a very usual interrogatory to the pomologist. He will find, when he owns many fruit trees, that the best time to prune is when he has most leisure, and whenever he has his knife in his hand. In the spring and summer the wounds will begin to cicatrize quickest; but pruning cannot then be so rapidly performed, owing to the mass of foliage and to the difficulty of arriving at a decision what to cut away, as rapidly as can be reached in the season when leaves have fallen. I would recommend never to saw off a limb at right angles, but obliquely. It promotes a quicker covering of the incised surface by the young bark.

Let me suggest as a substitute for shellac dissolved in alcohol, as a protecting coat, a mixture that I have found very adhesive and efficacious:—Fresh cow manure and clay, with an egg or two and some molasses thrown in; the whole reduced to the consistency of thick paste or thin mortar, and applied with a small trowel or a knife with a very broad blade. The shellac solution is undoubtedly the cleanest and most convenient to apply, but shellac is not always at hand in the country. E. L. R. *Baltimore, Md.*

Indian Corn after Buckwheat.

MESSRS. LUTHER TUCKER & SON—In the Cultivator of 1856, page 319, you notice "the injurious effects of *beech*-wheat on a succeeding crop of corn;" but you suggest no remedy. Some years since a friend of mine had a field of corn, a part of which had the previous fall been in *beech*-wheat. The part that had been in *beech*-wheat came up yellow and had a sickly appearance, while the other part of the field was of the richest dark green, and considerably higher than the *beech*-wheat part. About the first of June my friend applied plaster to the hills of the sickly corn, but had not enough to plaster all the *beech*-wheat part. In a few days the plastered corn was as rich a dark green and looked as healthy as any in the field. The few rows not plastered remaining yellow, he procured plaster sufficient to put on those few rows, which soon joined their neighbors in exemplifying the efficacy of plaster. WM. C. HOFFMAN. *Pomona, Frederick Co, Md.*

MILDEW ON THE GOOSEBERRY.—I would mention that a few years ago I procured some of the best kinds of gooseberries, and for one or two years had good crops. Since then they blast as soon as the fruit is formed, and the bush also partakes of the disease; but I would mention that two branches that lay flat upon the ground had fruit on them, while all on the upper part of the bush mildewed as soon as formed. W. GRAHAM. *North Bay.*

Value of Leached Ashes for Grain Crops.

Reading an article and inquiry in regard to leached ashes in a late number of the COUNTRY GENTLEMAN, and having used them to some extent, we will give our experience and opinion, and leave it to others to judge of their worth.

Our first experiment was on a piece of about an acre, which we were fitting for corn, and preparing for a "premium" crop. The land was well manured, and plowed deep, and then some ten or twelve loads of leached ashes, of thirty bushels to the load spread as even as possible, and then thoroughly harrowed. The corn was planted in drills, three and a half feet apart in the rows, and from five to six inches in the drills. The corn came up well, and made the most rapid and vigorous growth I ever saw until about the time the ears were fairly set, when one of our severest droughts commenced and lasted so long that no after rain was of any help to the crop. It was planted too thick for the season, yet I got the heaviest growth of stalks I have ever seen, and about eighty bushels shelled corn per acre. The corn was cut up in Sept. and drawn off, and the ground plowed once and sowed to wheat. The wheat seemed to make the same rapid growth as the corn; the heads long, well filled, and remarkably plump, yielding easily a bushel to ten sheaves, and at the rate of forty-six bushels to the acre. Now this field had been long cultivated, and we were familiar with its crops; and though we may be unable to convince others, yet we are satisfied the ashes were the main cause of the rapid and luxuriant growth as well as the superior quality of the grain.

The effect from the ashes was evident in a number of succeeding crops, both of wheat and corn. It is true the whole field was treated with ashes, (being a a small lot cut off from other fields by a road,) consequently there was no chance for comparing with land not ashed, yet the effect was so marked as to leave no doubt as to their value as fertilizers.

Our next trial was on a piece of winter wheat, and here we had a fair chance for comparison. In the winter, when the ground was frozen hard, on a portion of the field leached ashes were evenly spread at the rate of eight or ten loads to the acre. When the wheat started to grow in the spring, the ashed part made the most rapid growth, so much so as plainly to be noticed; and at harvesting the difference in the standing grain was still more evident, it standing thicker, taller, with longer heads, and better filled with a plumper berry, and giving a much better yield both in quantity and quality. Now in this field, though the treatment otherwise has been precisely alike, before and after the application of the ashes, whenever a crop of corn or wheat was growing, the exact line where the ashes were left off, was plainly visible four or five years after their application.

Again, in another field on a spot where ashes were left after leaching for "salts," as was the practice when our lands were first cleared, some forty years since, the effects are still plain and unmistakable; corn, wheat, or oats, still growing rank and vigorous as on newly burned and cleared land. We have tried them on potatoes, when they increased the yield and evidently the rot, being used in the worst seasons of the potato disease.

From what we have learned from our own experience, and from others who haved used them, we consider leached ashes, on all dry soils, (if not leachy,) and especially on land long cleared and tilled, and for grain crops, as corn and wheat, a most valuable and lasting fertilizer. On wet or cold soils we doubt whether the result would be as favorable, and the experience of some of our farmers confirms our opinion.

As to quantity and mode of application, we should use from eight to twelve loads per acre, depending on the supply and amount of land to be ashed. Our opinion and mode would be to spread them evenly, before the last harrowing, for corn, and thoroughly mix with the soil before planting, and spreading them and harrowing in with the seed wheat; or they may be spread any time in the fall or winter on the wheat.

If your correspondent has a piece of winter wheat on dry ground, and will draw and spread ten loads evenly on an acre, and note the result at harvest, or spread the same amount on an acre of his corn ground, before harrowing for the last time, we think he will be convinced of their value for grain crops, on dry ground at least. As to its paying, it must depend of course on the cost of their application. We think they will pay to draw as far as any common manure, and that their effects are more lasting. That the lime used in considerable quantities in leaching, may, in the connection, contribute to their good effect, we do not doubt; and that ashes, as usually thrown out from the ashery, on certain soils and for certain crops, are valuable, we are perfectly satisfied. F. FAY. *Salem Cross Roads, Chautauque Co., N. Y.*

Experiment with Guano and Stable Manure.

MESSRS. EDITORS—Condemning, as all well thinking persons must, the prejudices with which many of our practical farmers regard all agricultural writings, and their unwillingness to receive instruction by becoming subscribers, I cannot but make some allowances for them, from the manner in which much agricultural information is imparted. To remove ill-founded prejudices we require more practical experiments, carried on during different seasons and in different soils; for instance, we want to know the advantages, if any, to be derived from the application of foreign fertilizers. This can only be done by actual tests on different soils and during different seasons.

Hence I have taken some pains in testing, on six acres of summer fallowed sand land, the relative value of guano and barn-yard manure. About the middle of September 1855, I applied 900 lbs. of Peruvian guano, well mixed with five times its bulk of pulverized soil, and a small quantity of gypsum, to half of the six acre lot, by spreading it as evenly as possible over the surface, and then turning it under with the plow four inches deep. One bushel of White Flint wheat to the acre was then drilled in with Seymour's two horse drill, cross harrowed and rolled in the usual manner.

I next scattered over the other half of the six acres, sixty ordinary two-horse wagon loads of rotted barn-yard manure, which had been heaped and turned during the summer. It was plowed under five inches deep, and sowed broadcast with one and a quarter bushels of flint wheat to the acre—the reason for not using the drill, was that it clogged with portions of the manure that were not rotted,—cross-harrowed and rolled as before.

The crop was harvested in July, during that very hot, dry weather. Last October it was threshed, cleaned and measured separately. The three acres to which guano had been applied, gave 27 bushels; the three acres manured, gave 48 bushels. The quality of the wheat was equally good, both weighing 63 lbs. to the bushel. To what cause must I attribute the much larger yield of the half that was manured? D. D. C. *Schenectady, N. Y.*

The Proper Application of Manures, &c.

MESSRS. EDITORS—I have been very much interested of late in perusing the articles on Manures in the Co. GENTLEMAN. I think the making, saving and applying manures, is of vast importance to the farmer whose lands need renovating from year to year, or once in four or five years.

Mr. JOHNSTON'S practice may be a good one, but I can't quite believe yet that piling green or long manure, to remain so for six months or one year or more, is better than plowing it in while green. It may do better for wheat to be in a decomposed state before it is applied, but for corn long manure gives good crops, and the succeeding crops I think must be better than those succeeding the rotted manure.

I have often stood by a manure heap and had my nose tingle by the ammonia which escaped from it. Now can it be that such a malaria can arise from it, and not injure it? I think not. The gases of manure fermented in the ground, (that is plowed under,) are all saved by being absorbed by the soil, but if fermented in a heap some of it must escape.

Rotation of Crops.

The farm I occupy lies on the intervale of Deerfield River, four miles from its mouth. Some of it is sandy loam, and some heavy clay or clay loam, on a stiff clay sub-soil. On the sandy soil I rotate with rye, wheat and clover, cutting the first crop of clover for hay, and plowing the second under for rye and wheat in September. By such a course I have raised in favorbble seasons from 20 to 28 bushels of rye, and near 30 bushels wheat to the acre—occasionally the corn crop comes in the rotation, when the land gets so grassy that it interferes with the growth of the rye and wheat, which is once in five or six years.

With the clay lands I have pursued a different course. When planted to corn, it is a sward, having been pasturing or mowing previously. In the spring, as soon as the land is in suitable condition to plow, from 12 to 15 large cart loads of long manure from the barnyard, is carted on to it, and spread; then about one bushel gypsum or plaster is sown to the acre and plowed under. When planted, (which is sometimes deferred till quite the last of May, on account of being too wet,) about five loads to the acre of hog manure is put into the hills with a small handful of plaster to each hill. Plaster used as stated above, has a very marked effect, the corn showing a more healthy color throughout the season, and the yield of corn is from 50 to 60 bushels per acre. The following year oats are sown at the rate of three bushels per acre, and seeded with grass seed or timothy and clover—I put a bushel of the former to eight or ten lbs. of the latter to the acre. The yield of oats is usually from 40 to 50 bushels per acre. It is then pastured or remains in mowing five or six years, when the same course as above stated is pursued again.

It seems to me no eastern farmer can afford to cultivate a farm without pursuing a course of rotations, for by so doing the sward he plows under helps manure it, and it is growing richer, while on the other hand, by continual cropping, it is growing poorer and less able to bear good crops.

How to Make Manure.

In regard to the management of cattle and making manure, I pursue the following course: My barnyard is small for the stock, which I consider good economy for the reason that the manure occupies a small surface; consequently it is not washed so much by rains. The manure is carted out on to grass land in the fall and spread, which I consider much better than to leave it in heaps during the winter. The yard is then filled to the depth of 12 to 18 inches with muck or turf, for absorbing the urine and wash of the solids. The stable floors are taken up, manure taken out which was put in the previous autumn, and filled up to the floor with turf. This absorbs the urine from the stables and makes a rich manure. My cattle are taken to the barn from the 15th November to December 1st, and are fed twice a day with as much hay as they will eat in the stables, with a little meal, and the corn fodder is fed to them in the yard when the weather will admit of it.

The straw is used for bedding stables and sheds, except what is eaten naturally as change of food. I am of the opinion that straw is worth more for bedding and manure, than to feed to stock, even if it is harvested in the best condition.

Value of Agricultural Papers.

THE CULTIVATOR and COUNTRY GENTLEMAN have been of inestimable value to me for the last ten years; indeed I should hardly know how to do without a good agricultural paper at this time. I have learned many things I did not know before, and am continually learning something of value from them, in opposition to the old fogies who say, "away with your book-farming; it will ruin you if you follow its dictates; your farm will not produce enough to afford you a living." Such opinions are based upon the idea that all articles written for an agricultural paper are by those who have no practical knowledge of farming, and it is hard to convince them it is otherwise; but such opinions are giving way to more enlightened views upon the subject. The theoretical must be assisted by the practical to make farming profitable. JAS. CHILDS. *Deerfield, Mass.*

Improving Meadows.

MESSRS. TUCKER & SON—Permit me through your paper to make some suggestions on the renovation of mowing lands where the crops fails, by turning under and seeding in the fall.

My practice has been, for some years, to mow about the first week in July; let the after-crop stand until from the 1st to the 15th of September; then turn it under carefully: spread on from 10 to 15 loads of well rotted manure prepared before hand; sow from 12 to 15 quarts of herds grass seed, and harrow well, and complete by rolling it, so as to give a good surface for mowing the next year. By this method I get from 1 to 1½ tons increase of hay to the acre. I consider what green crop I turn under to be as good as 10 loads of manure to the acre. I sow no clover, unless it is for the purpose of turning under to enrich my land. By this management I manure my lands the cheapest, with the least labor, and with the best results.

I have adopted the same course of sowing my grass seeds on my newly cleared lands, with equally good results. If possible, burn and clear off the logs in August, and sow by the 15th of September from 12 to 14 quarts herds grass to the acre, and harrow well. The plants will come up and get a good growth before winter, and the result will be a good crop the next year.

I prefer sowing my grass seed without a crop, to sowing in the spring with a crop. My reasons are, first—If I sow with my spring crop, the grass plants are overtopped, and one-half are killed if they come up; and second, that if they do survive, they do not get much growth until the spring crop is harvested. My method is to keep the grass seed until the spring crop is harvested: then turn under the stubble carefully and sow the grass seed, putting 10 to 15 loads of manure as a top-dressing, harrowing well and rolling down, taking care not to have it fed. I have tried both methods on the same piece of land, side by side, and the result has always been in favor of the fall sowing. By this course I avoid having my grass plants killed by a summer drought, or the direct rays of the sun—have more and a better time to prepare the land, and the result is a better crop. GEORGE TROWBRIDGE. *Camden, Oneida Co, N. Y.*

Ten Recipes for Housewives.

One of our lady friends, for whose skill and taste in everything relating to house-keeping we can vouch, has, at our request, sent us the following recipes, and we trust she will not forget her promise to send more of them.

MR. TUCKER—The recipes which I promised you so long ago, I now send, hoping they may be of some use to your readers. I have tried all, and have never failed in having them good. When I meet with a recipe which appears to me not exactly as it should be, I generally alter it according to my own taste and judgment. I will send you more some other time if you wish it. M. H. K*****. *Auburn, N. Y.*

A CHEAP PLUM PUDDING.

One tea-cup of chopped suet,
One " of chopped raisins,
One " of molasses or sugar,
One " of sour milk,
Three " of flour.
One tea-spoonful of saleratus,
One table-spoonful of ground cinnamon,
Half a tea-spoonful of ground cloves.
Boil it three hours.

STEAM PUDDING.

Four tea-cups of flour.
One " of sugar,
One " of sweet milk,
One table-spoonful of melted butter,
One tea-spoonful of soda,
Two " of cream tartar,
Two eggs, with any kind of fruit you wish.
Steam two and a half hours.

DELICIOUS BLANC MANGE.

Put one ounce of Cooper's isinglass in a little water over the fire until it is dissolved. Then sweeten one quart of cream, add a little lemon or vanilla—whip it. Strain the isinglass on the cream—wet your moulds in cold water—fill them, and set them away until they congeal.

MOUNTAIN CAKE

One pound of sugar,
One " of flour,
Half " of butter,
Six eggs,
One tea-spoonful of cream tartar,
Half a tea-spoonful of soda,
One cup of sweet milk.

CURRANT WINE.

One quart of juice,
Two " of water,
Three pounds of brown sugar, all to be put together in a cask—let it remain with the bung out for six weeks—then bung it up.

TO PICKLE PEACHES.

Three pounds of sugar to one quart of vinegar. Spice them—pour the vinegar and sugar on cold, then set the jar in a pot of boiling water and keep them there until they boil.

INDELIBLE INK—(that is *indelible*.)

Six cents worth of muriatic acid—one table-spoonful of soft water—one drop of vinegar.

CAMPHORATED ICE.

Equal parts of spermaceti, lard, white wax and camphor gum—simmer them all together, and it will cure almost everything.

EXCELLENT POMATUM FOR THE HAIR.

Melt four ounces of beef marrow,
" six " of lard,
" half " of yellow wax,
Perfume while cooling with oil of bergamot.

CURE FOR A FELON.

Equal parts of bar soap and common salt, softened by turpentine.

Cure for Inflammatory Rheumatism.

MESSRS. TUCKER & SON—In the Country Gentleman of the 5th inst., I notice an inquiry for a remedy for inflammatory rheumatism. I think I can give one that is both simple and effectual, and almost costless.

First—rid the system of *costiveness*. This plague is frequently the *origin*, and almost always an attendant upon inflammatory rheumatism. It may be easily cured. A thorough vegetable cathartic at the outset, and a pill or two each night following on retiring to rest, will open the bowels; and if the person is kept warm and clean, the disease will generally wear off soon. Ayer's, Moffat's, or Dr. S. S. Fitch's Cathartic Pills—the last best—are good for such a cure.

Should the rheumatism seem disposed to hang on somewhat after the costiveness is removed, it may be summarily ejected in the following manner: Set the patient in a low chair, and cover him—chair and all—closely, with a good thick bed-quilt, leaving a breathing place for the mouth and nostrils. Under the chair place a spider or iron basin filled with *rum*, which set on fire. If it makes too great a heat for the patient to bear, check it by sliding a board over it. Keep it a-going till the patient is thoroughly heated, and as wet as a drowned rat. The bed, by the side of which this *bath* is taken, should meantime be thoroughly warmed, and the patient removed to it from the chair, well covered up and tucked in, and allowed to swelter it out. Inflammatory rheumatism will take its departure, and if the proper precautions are afterwards observed, the places which now know it will know it no more forever.

Keep the body *warm always* by comfortable clothing—flannel next the skin—keep clean by bathing—avoid chills and damps, and wet or cold feet. Above all, keep off the great enemy—*costiveness*. Should it threaten, take one, two or three pills at night on retiring—just enough to loosen, not to physic. Eat a plenty of good wholesome food—not knick knacks, and you will come out all right. I had a most horrible experience with inflammatory rheumatism—many times should have died of sheer agony, had not my pains been allayed by morphine. After suffering most awfully, losing much valuable time, and been dosed and drugged, I was finally *cured* by the above simple and inexpensive method; and for seven years hav n't had a *touch* of the disorder, and don't fear I ever shall. F. A. *Rutland, Vt*

P. S. The spirit bath should *never* be used till some days after all costiveness is removed

Stretches, &c. in Sheep.

MESSRS. EDITORS—You may recollect last winter that I wrote to you that I had some sheep die of the stretches, and that one of your correspondents advised to hold them up by the hind legs, (but not to lift the fore feet off the ground.) for fifteen minutes. I had one sick last week, and tried this cure, and next morning it chewed the cud and fed as well as usual. This is the first I ever had get well of this complaint, and the first time I tried this cure.

I had a very healthy looking sheep die last week, after 24 hours sickness. It went nearly blind, as it ran its head against the wall When opened, there was something like and about the size of a blown bladder of a hog growing on the stomach It contained nothing but wind or air. JOHN J. CRAIG. *Madison, Ind.*

MICHIGAN AG. COLLEGE.—Hon. JOSEPH R. WILLIAMS has been appointed President and Director of Practical Farming, and Mr. JOHN M. GREGORY, Professor of Political Economy and English Literature, in this institution.

Underdraining.

EDITORS CULTIVATOR AND CO. GENT.—My land mostly lies sloping to the west, with a fall of five to ten feet in a hundred, and is intersected by two small brooks which will afford a convenient outlet for drains. The soil is an admixture of clay and fine sand—is productive in grass, and in favorable seasons, with good cultivation, produces fair crops of all kinds of grain; yet owing to the hardness of the subsoil, the water, from heavy rains or melting snows, is unable to pass down through it, but what does not pass off on the surface, percolates slowly down the slope through the soil, *upon* the subsoil, or settles in any low places that may happen to be in the field, making winter grain very liable to be thrown out, and often rendering the necessary spring tillage backward and imperfect. The hardpan, which consists of fine sand, gravel and stones, with a portion of clay; the whole apparently cemented together, lies at various depths—say from one to two feet. Stones suitable for filling the drains may be had on the premises, but owing to the hardness of the subsoil the digging is expensive, especially if the drains are made deep. Drains three feet deep, will cost about fifty cents per rod when completed; two and a half feet, six or eight cents less.

With a fair market for the productions of the soil, will underdraining pay on such land? (1.)

How deep should the drains be made? (2.)

How far from each other? (3.)

And in what direction with regard to the slope? (4.)

I observe that most of the late writers on the subject, recommend making the drains directly up and down the descent, but it seems to me that where the fall is considerable, they would sooner catch the descending water if placed diagonally across, with sufficient fall to carry off the water freely, and that therefore less of them would be required; but your more matured opinion on this point is respectfully solicited.

As thorough draining is an expensive operation, I wish, before commencing it, to obtain all the information I can on the subject—therefore by answering the above inquiries, you will much oblige A SUBSCRIBER. *Wyoming Co., Pa.*

(1.) There is no doubt whatever, that with good farming, the cost of underdraining would be returned in three years, and possibly in two—the cost, at 50 cents per rod, and two rods apart, would be forty dollars per acre; at 42 cents a rod the cost would be $33.60.

(2.) Recent experience of the best farmers is decidedly in favor of deep draining—for although shallow draining succeeds about as well at first, it loses its effect after the lapse of years. Some of the best English farmers advocate a depth of four feet. These remarks apply to tile draining. We are not sure they would apply so well to stone-filled drains, in a tenacious soil. Where there is much slope, three feet would be better than four feet on a nearly dead level. Where the hardpan is within a foot of the surface, in the land described by our correspondent, two and a half feet will probably answer; but where the surface soil is deeper, we should decidedly recommend three feet.

(3.) Not more than two rods apart.

(4.) The shortest way down the hill. For this reason,—if the drains are two rods apart, the water will oflw through the soil downwards in an oblique direction, and each drain will receive the water on *both sides*, so that the greatest distance the water will have to travel before reaching the drain will not much exceed one rod. But if the drains are cut diagonally, they receive the water *all on one side;* and a part of the water has to travel nearly three rods through the soil before entering the drain below. Besides this, the water when once in the drain will not descend so freely in a diagonal course; and if obstructed may flow over the channel into the soil below. While in a directly descending drain, the water, if obstructed, will immediately find the channel again, and will not pass off into the adjacent land.

Feeding and Culture of Carrots.

MESSRS. TUCKER & SON—I look upon carrots as one of the most important root crops that we have in general cultivation, and the various profitable uses to which they are or might be applied, should induce a majority of the cultivators of the soil to grow them more extensively than they now do. All kinds of stock, without an exception, are fond of them. I have wintered swine almost entirely upon carrots, fed raw. They not only grew, but *fattened* upon them. For this purpose, however, I would advise to cook them.

I prefer them to any other root (not excepting beets) for feeding cows that are milked through the winter. Butter made from cows so fed, is as good flavored and rich colored, as can be made in June or September. I once fattened a cow upon carrots, feeding meal only for a few days before she was butchered. She was quite thin when I commenced feeding, yet fifty bushels of carrots made her fat enough to yield ninety-six pounds of "rough tallow." Good judges pronounced the beef superior to any they ever saw. I commenced feeding her about the 15th of Oct., and fed a bushel a day until the fifty bushels were consumed. Can any of the readers of the Co. Gent. tell me of a cheaper way to make good beef, than the above? If so, I should be glad to hear from them.

Horses also thrive well upon carrots. I believe it is generally conceded by those who have tried it, to be ahead of any other root for this "most noble animal." In fact it is THE root for the horse. Try it, brother farmers. Feed your horses less grain and more carrots, and if they have not smoother coats and fewer coughs than that neighbor of yours, who "stuffs" his with dry hay and grain, then resume your old practice, and call me a K. N.

I consider the *Long Orange* far the best as a standard sort for general cultivation. The White Belgian has been recommended by some as the best, on account of its being more easily harvested, as it generally grows nearly one-third of its length above ground. From what experience I have had with them, I think the difference in the labor of harvesting is not as great as the difference in the carrots. The White Belgian is far less nutritious than the deeper colored varieties, and never keeps as well.

I lately received a package of carrot seed from Germany, that was labeled "*Early Dutch Horn Carrot.*" It proves to be a very early variety, and is the best for table use of any kind I ever cultivated. It is fine grained, and has a peculiar, rich, and agreeable flavor; top, small; color, deep orange,—short,—tap root terminating abruptly. The latter qualification fits them admirably for thin or stony soil, as it facilitates the labor of harvesting. The carrot delights in a deep, rich, mellow soil. Therefore land intended for them can hardly be plowed too deep, or made too rich. I sow in drills, 18 inches apart. They should not stand too thick. An inch or an inch and a half apart is about the right distance. I generally sow from the 15th of May to the first of June, and harvest at the rate of 1000 bushels per acre. Carrot seed should be covered about one-third of an inch deep, and the earth firmly pressed about it. The neglect of the latter precaution has been the means of losing many valuable crops. In sandy soil it should be covered deeper. The heaviest crop I ever raised was on a piece of land that was used as a barn-yard during the winter preceding. The greater portion of the manure was drawn off, and the land plowed and sowed the first of June. The ground and carrots were measured at the time of harvesting, and found to yield at the enormous rate of 1600 bushels per acre. EDWARD L. COY. *West Hebron, Wash Co., N. Y.*

The Hog Cholera.

Noticing in your journal an account of the general appearance of this disease, and having lost a valuable brood sow very suddenly, I thought I would make a *post mortem* examination, the result of which I send you, in order that a comparison may be made by others in similar circumstances.

On the 5th of January the animal was observed to refuse her food, but did not exhibit other signs of uneasiness, and I supposed that during my absence she might have been over-fed. On the morning of the 6th, she was found dead, though not entirely cold. On examining her externally, large purple blotches, in size from one to three inches in diameter, appeared on the throat, extending along the stomach to the tail, resembling erysipelas. On attempting to bleed her, very little blood, and that almost black, was obtained. After taking off the skin, the body appeared as usual, and on opening the stomach the large intestines were highly inflamed, being of a dark red appearance; the bladder and kidneys did not seem affected, nor was anything perceived about the small intestines. On examining the stomach it was found to contain a small quantity of half digested food, but presented no inflammation or other derangement. On removing the liver and lungs, the liver appeared of a dark purple color, which soon changed to the usual dark red, and no inflammation or other derangement could be observed. The lungs were highly congested, every blood vessel being gorged with black or venous blood.—Whether this was due to disease, or only the natural condition of the lungs when the animal is not bled, I am unable to say. On opening the cavity of the chest, about a quart of straw colored liquid, resembling urine, escaped, which was without smell. The heart did not exhibit any derangement, and the lining membrane of the chest was not at all inflamed. The throat, tongue and brain presented the usual appearances.

My opinion is, from the above examination, that the disease is an inflammation of the large intestines, and that the remedies should be by injection of castor oil or other gentle aporients, which I have used in other cases with immediate effect; a common syringe, such as every family should possess, is all that is necessary. Molasses and water with melted lard, pretty warm, is excellent in most cases of illness of swine.—The hog, unlike most other animals, puts himself on a strict diet whenever any illness occurs, and eschews both food and medicine.—J. S. SHIPMAN. *Farmingdale, L. I.*

Singular Disease in Calves.

In THE CULTIVATOR for Feb., J. B. H., New Paltz Landing, asks for information respecting a disease which prevails in his neighborhood, among the last spring's calves. If he will examine those that die, he will find in the windpipe and lungs large numbers of *worms* and from one to two inches in length, and about the size of a large sewing needle. This singular disease has been known in this section of country for many years. It does not make its appearance every year, nor oftener than once in seven or eight years. It shows itself the latter part of summer, or say about September. The calves most affected with it generally die in a month or two—those affected in a less degree may be carried through by extra feeding and care, and are generally rid of the disease before spring. I have tried various experiments in order to find a remedy, but without success. I should say to those who have calves attacked with this disease, feed them well with grain, roots, apples, &c.; shelter them from cold storms, and make them as comfortable as possible, and thus assist *nature* to throw off the disease. ISAAC BURR. *Meredith, Delaware Co., N. Y.*

Sinking Stones vs. Blasting.

As some may have large stones which they may wish to get out of their way, as I have, I would suggest the policy of sinking them, as being cheaper than blasting, except a person is about building and needs the stones for walls.

I had some hard flint stones in my ground which I could not blast, and to remove them I dug a hole along side, and tipped them in, sinking them about two feet below the surface. In doing this I found it so much cheaper than blasting, that all large stones that I cannot move without blasting, I now sink, as being decidedly the cheapest way to get rid of them; besides it helps trench the ground, which is a benefit. Seeing the advantage of this, I have thought you might like to make the suggestion through the COUNTRY GENTLEMAN if you have not already done so. P. *Waltham, Mass.*

How to Save Liquid Manure.

MESSRS. TUCKER & SON—Having had occasion, a few weeks ago, to go through the town of Western in Oneida county, I called at Messrs. PORTERS, where, having occasion to visit the cow stable, I saw that they saved their liquid manure. For the benefit of those who read your widely circulated paper, I will try to give a description of how it is fixed. Their cow stable is 80 feet long. In the center is a tank 24 feet long, 10 feet wide, and 5 feet deep, covered over. Right behind the cows there is a sink 12 inches wide and 3 inches deep. In the sink, between every two cows, there is a grating, 12 or 14 inches long, and 8 inches broad. This grating allows the liquid to drop through from the sink into a leader, which is right below the sink. In this leader it goes to the tank. All the slops and wash-water from the house are conducted through large pipes the distance of 200 feet, into the tank—also from the hog-pen, so that they collect from 700 to 800 barrels of liquid manure in twelve months They told me that the whole fixings only cost $60. I think the comfort the cows have, is well worth the money. The liquid is carried out in spring and distributed over the meadows with one of Fraser's liquid manure distributors. Any dairy farmer that is within 30 miles of Western, and who intends putting up new barns, should call to see this barn. It would well pay them. A SUBSCRIBER. *Trenton, N. Y.*

Dralning with Stone.

MESSRS. EDITORS—I will give you my experience in making blind drains, as I have made several hundred rods, and make more or less every year, and have made at all seasons of the year. The best time is in the spring, as soon as the ground is settled, especially where there is hardpan, as that then works the easiest. My mode is to commence with team and plow—cut two furrows, one from the other—then put the plow in the centre and cut as deep as I can—then shovel out and dig from three to five feet deep, and even more where I cross ridges—the bottom ten inches wide. In filling, I take flat stone and set them on the edge on the outer side of the ditch, and let the tops come together, forming ∧—fill in with small stones up to within eighteen inches of the top or surface. Then take litter or straw and cover the stone lightly, and then take the plow and fill up rounding, as it will settle more or less. Some of mine have paid expenses the first crop. I have drains that were made in 1838, and answer their purpose well yet. L. C. *Monroe Co.*

The Willow.

Who can Cultivate it, and what it may be used for.

It is generally by comparison that the great mass of us judge, whether of economical results or preliminary processes; either of cultivation or the manufacture of its products. I may be allowed therefore to state what I have seen of the Osier Willow and its handicraft applications in England. This will appear the more judicious before alluding to what may be done here at home, because we derive not only what knowledge we have of its value, but even the plant itself from thence.

In England the willow is manufactured in a peeled state, into domestic clothes baskets, rocking cradles for children, hand-baskets for picking apples; butchers' or meat baskets, bakers or bread baskets, chair bottoms, children's or small chairs, small hand baskets for eggs, &c., and a great variety of other purposes which I need not enumerate. The split willow is used principally for toys and ornamental purposes, ladies' baskets, &c., and it is used in the latter form for inclosing bottles or glass ware intended for pocket use and for conveyance in a more secure form, to places more or less remote.

It is to purposes for which it can be converted in its natural unpeeled state, and situations in which it can be grown, that I wish particularly to invite the attention of farmers.

So easily cultivated is the willow in England, that they there grow it extensively—as I have seen it in the valley of the Severn and other places—in cuttings where the top soil has been taken away to form embankments for roads and canals, and where clay has been taken for brick and tile making, &c. In such situations the roots of the willow bed are under water for three months of the year, from which it may safely be inferred that localities in which it can be submerged or flooded in the spring, will be most favorable to the rapid growth of some at least, of the several sorts. Varieties of it can be grown on moist land anywhere without flooding—but the same can, without doubt, be raised more rapidly with; and it is therefore most appropriate, where such situations can be secured, to use them for the propagation of this simple but useful tree.

I have seen it—in some of its varieties—used for purposes but little thought of here—and cut from trees—but for which, or more *useful fixtures*—a fence may generally be considered a fixture—it may be applied, especially where fencing material is getting "small by degrees and beautifully less," as in many localities in this great west, with great convenience and advantage; and the rapidity of its growth is a high recommendation to its cultivation, whether for fencing or other purposes. In the districts where what is called the Worcester hop is grown, which, notwithstanding the name, is principally in the county of Hereford, the willow is extensively used for hop poles, which are from fourteen to twenty feet in length—also for hedge stakes, which are driven into the ground, as well as the hop pole—and these situations both, in that moist climate and soil, are tests of its durability—the stakes being for the purpose of interlacing the thorn and other hedging material around and between, thus stiffening and strengthening the fence till it becomes an impassable barrier.

Now if varieties of the willow can there be grown so large, why may it not be grown in moist localities, where, like the common Poplar, Elm, Black Ash, &c., it can elaborate the moisture necessary to its composition, with equal facility and advantage, in these States where so many varieties of soil, moist and dry, are afforded, and where at least several of the smaller varieties have been quite successful.

What is called the Etheredge Willow is said (I have not seen it in the west) to be a large and quick grower, and is probably a variety of the large kind to which I have alluded; and if so, it can be grown with advantage and economy, and to supply a great necessity for fencing purposes as middle-poles, used under the rider to stop sheep, &c., and for stakes and riders in our common rail-fence, as well as for stakes (which, if put in early in spring (the stakes) would certainly grow,) and top-poles for sod or ditch fence in swamps and marshes.

That the willow is durable is well known by the lasting qualities of the manufactures of its cultivated varieties; and even the wild growth of our swamps is used for and known to make durable fence-stakes.

I have called a large variety of the willow a *tree*. This variety is similar to that which has been described in the papers as growing large enough for hoop-poles in two years, and suitable for cradle handles, &c., &c. This tree variety is grown readily on the margins of streams, stock water ponds, fish-ponds, lakes, artificial or natural, mill-ponds, and in swampy and springy places; and there is an abundance of such among us, and it flourishes rapidly.

It is propagated by cutting poles two inches and upwards through, and from twelve to fourteen feet long, and inserting them, by means of a bar, from eighteen inches to two feet and a half deep, according to the texture of the soil and the *permanent* supply of moisture to the imbedded end of the pole. The poles are *cut in winter before the sap starts*, for this purpose; and, in this climate, should be kept from thawing till the frost is out where they are intended to be put, and then set out with a bar as stated. It is necessary to tie some rough material, as locust brush, old raspberry bushes, or other brush, to keep stock from *rubbing* them the first two seasons, when they will have become securely rooted, and thus far out of danger.

It is desirable to leave a few inches of one or more branches, where the pole is cut off at the top, to make a wide spreading head for the tree. At two or three years from setting out, the pole, or tree head, is cropped, or cut off as level as can be done—level to prevent the sap from going too much to the central or leading branches,—and the crop, or poles and brush, used for pea brush, bean-poles, brush-drains, for which it is excellent, and for faggots, or bundles of brush for summer fuel, kindling wood, &c. The smaller branches or twigs of the tree sort, also the Osier, are excellent for tying on the protecting material for the poles, and tying up the brush, so that it may be taken when wanted with facility and expedition. At this stage of its growth a head of considerable size and breadth—say from ten to twenty inches, according to the number and spreading of the branches when the pole head was cut, will have been formed.

Now for the practical benefit or result. At five, seven, and nine years from the first cropping, and in a greatly *increasing proportion* from many successive ones, poles large and long enough, strong enough, and durable enough for stakes, hop-poles, top-poles and riders, and of size sufficient to split for hurdles or portable fence, may be cut in large quantities; and by a dexterous hand and sharp axe, with all desirable speed; and all with sufficient economy of labor and expense to satisfy every reasonable expectation, and even to gratify the most fastidious.

In addition to the uses I have enumerated, it may be made to subserve those of wind breakers, and excellent fencing material for our marsh and moist lands, planted on the banks, and constituting a beautiful fringe, which with rows of trees of the large sort at intervals of twenty feet—they will require this distance at least, for I have seen the solid level head four feet broad *after* cropping, and the *head growth* fifteen feet in diameter—will add variety and beauty to the scenery, and necessary conveniences and worth and value to the farm.

The Osier can be fabricated, *unpeeled* here, as it is in England, into a great variety of useful basket-ware

and packing cases, such as fruit, potato and corn baskets—crates for packing crockery; vegetable and poul try baskets of any required size, to be sent to market or other distant places. For fruit and vegetable baskets, and, in brief, for packing all quick decaying substances, requiring access of air, it is admirable; and in the summer season they would be very convenient for sending perishable goods from the Western States, and other distant points, to the New-York market. For corn baskets it will be admirable, and very cheap; and also for baskets to feed cut straw, roots, &c., to stock; and the large or small kinds would make a good wattled fence for poultry yards, &c.

As I have stated, it is extensively used in England unpeeled; and I think it correct to say that full half the whole growth there, is manufactured *without* peeling, and there is no reason why as large a proportion, besides the addition of the large sort, may not be fabricated in the same state by us.

The proportion in which farmers should plant, may be to some extent variable, but I am preparing to set out half a rod of Willow and Lombardy poplar together, in nursery rows, to every acre of marshy land I have to fence, (Yellow Locust I *have* prepared in the same proportion, for upland fencing material,) and I would earnestly urge every farmer to establish these necessary stated points now, for I am confident—having good personal reasons to be so—that besides willow manufactures, we can mature a system of hedge-fence that will be sufficient for our entire ordinary wants and purposes, with materials already successfully and extensively grown in these States; and if farmers will now set out nursery plats of the Willow, Yellow Locust and Lombardy poplar, they will in two brief seasons have the material with which millions of acres may be enclosed within four years, with the rudiments of substantial fencing: thus adding value to the soil, beauty and variety to the landscape, increasing the general value of land, and by saving the needed material of fuel and fencing, realizing the injunction, "put money in thy pocket." I need not specify who can manufacture willow ware or where it can be done, for it is so simple an art, and so easily performed, that almost every one with any handicraft or skill, and every homestead, are abundantly suited to economical conversion. J. W. CLARK. *Marquette, Wis.*

Cost of Keeping Work Horses and Oxen.

In the usual haphazard management of many farmers, they never seem to figure the cost of any crop they raise, or ever attempt to reckon the cost of rearing to a given age their several kinds of stock, or even dream of the expense of keeping a work horse or yoke of oxen. It might be difficult to arrive at the exact cost of wintering a yoke of oxen on many farms, as they are at times fed on meadow, then on English hay, straw, corn-fodder, nubbings of corn, &c.; but in this way of feeding through the foddering season a pair of seven feet oxen, the actual expense may amount to more than many farmers are aware of.

We have some facts showing the cost of feeding a span of horses and a yoke of oxen for one year, when fed on hay and Indian meal, and kept constantly at work. Of course, the size of horses and oxen varies greatly, as also does the price of hay and corn in different sections of the country. As a general rule, it is supposed that the quantity of food required by an animal, is in proportion to the weight of the horse, ox, or sheep. Thus, a horse weighing 800 lbs., would require but two-thirds the food of one weighing 1,200 lbs. So of oxen—a yoke weighing 3,000 lbs. would require one-third more food than a pair weighing but 2,000 lbs. We do not say the above rule is perfectly accurate, but taken in connection with some accurate statements of *feeding* that we shall cite, we think it may afford a tolerable data by which the farmer can calculate, something near, the expense, per week or month, of keeping a horse or yoke of oxen.

We copy from the "Agriculture of Massachusetts, for 1855," the statements of W. F. PORTER, Esq., of Bradford, Mass., on the cost of feeding work horses and oxen, when kept on hay and meal. He says:

"I have kept from six to ten oxen and four horses for the past five years, until last spring, when I dispensed with oxen altogether. I have learnt by actual experience, the cost of keeping to be as follows: A pair of horses, weighing twelve hundred pounds each, will work every fair day during the year ten hours, and keep fat on six quarts of Indian meal and sixteen pounds of good hay each per day. A pair of oxen, girting nine feet, or weighing thirty or thirty-two hundred weight, will require four quarts of Indian meal and thirty pounds of good hay each, per day, provided they are kept at work as many hours as the horses. The cost of keeping a pair of horses as above, would be, at prices in this vicinity at this time, thirty-two pounds of hay per day, at $25 per ton, forty cents—twelve quarts of Indian meal, $1.12 per bushel, forty-two cents—total, eighty-two cents, or $299.30 for one year. Keeping one pair of oxen one day, sixty pounds of hay, $25 per ton, seventy-five cents; eight quarts Indian meal, $1.12 per bushel, twenty-eight cents—total, for one day, $1.03, or $375.95 for one year."

These figures will astonish many farmers; but the horses and oxen were extra large, and so were the prices of hay and corn.

Some two or three years since, Gen. W. P. RIDDLE of Manchester, N. H., informed us that he had kept a pair of his work horses for the (then) past three years, on the daily allowance of four quarts of Indian meal and three pecks of cut hay to each horse. On this allowance it requires about one bushel of corn per week, or fifty-two per year, and one ton of the best quality of English hay, for feeding a horse for one year. Corn at $1 per bushel, and hay at $15 per ton, (the price of each at that time,) makes the cost of feeding a pair of horses on Gen. R.'s plan amount to $134 per year. We saw the horses, and think they weighed not far from 900 lbs. each.

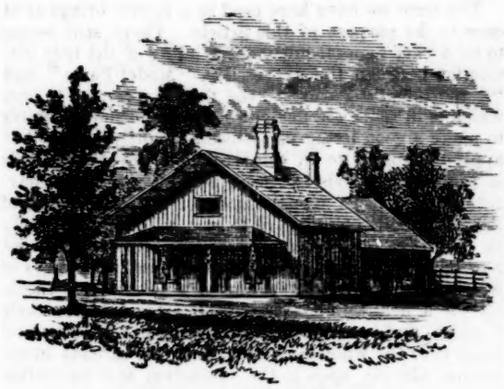
A few years since, we owned a pair of seven-feet oxen. In the month of May we purchased a given quantity of good hay at $12 per ton, and corn at $1 per bushel. The oxen worked six days in the week. The cost of feeding amounted to $4,50 per week, or 64$\frac{2}{7}$ cents per day, (39 cents per day less than Mr. Porter's etimate,) yet the expense of feeding a yoke of seven-feet oxen, as it cost us, would amount to $234 per year, to say nothing of shoeing, taxes, interest on their value, risk of sickness, accidents, &c. *Query*—What should the farmer tax per day for the use of his oxen when he "works out," hauling wood, manure, plowing, &c. for his neighbor?

Compost for Potatoes.

A correspondent of the COUNTRY GENTLEMAN recommends Mr. Durant to try

100 pounds of best Peruvian guano,
200 " " Ground Plaster,
25 " " " Salt,

passed together in small quantities at a time, through a fine riddle, so as to mix them as *intimately* as possible—and use about half a gill to a hill of potatoes, covered lightly—say not to exceed three inches—and see what the effect will be. Some little experience has convinced him that it will keep off disease, and furnish a crop of excellent vegetables, both as regards size and flavor. If he had an opportunity to repeat the experiment himself, he would increase the quantity of salt to 50 pounds.



One Story Farm House.

This design for a simple and inexpensive farm cottage, is from the REGISTER for 1857—where it is accompanied by two different plans for the main floor, and one for apartments above, if a second story should be wished—together with suggestions for giving a little higher finish to the exterior, and estimates of cost, &c.

Ice House in Cellar.

Will you inform me whether ice can be kept to good advantage under a room occupied as a bed room, (in cellar,) and whether it would be prejudicial to health, by putting a ceiling and filling with saw-dust. I want it attached to the north end of my house, which is two stories high, and make it accessible from the cellar of the main building. What amount of ice will a cellar of 14 by 18 and 6 feet deep contain? I have two objects in this plan; one is to shelter from the sun—another, that the melting ice may pass through a drain from the cellar. A SUBSCRIBER. *Orange Prairie, Ill.*

An ice house may occupy one corner of a cellar, but we would recommend, in addition to the saw-dust covering, that a space of air be left, to circulate between the saw-dust and the floor of the bed-room above. This might not be necessary, if the floor over which the saw-dust is deposited is made perfectly tight, and the saw-dust well dried before using.

A space, 14 by 18 feet, and 6 feet high, *in the clear*, would contain 1,512 cubic feet. Each cubic foot of ice weighs about 55 lbs.; consequently there would be about 83,000 lbs., or 41 tons.

Use of Hen Manure on Corn.

MESSRS. EDITORS—In reply to W. F. WOODWARD in COUNTRY GENTLEMAN of Feb. 15th, I would say I have been in habit of using hen manure, applied in the hill on corn, for a number of years, with excellent success. I take my hen manure to a convenient place—say a barn floor, and pulverise it thoroughly—then mix two-sixths ashes and one-sixth plaster with an equal proportion of the manure in bulk of both ashes and plaster. After preparing my ground by spreading, say 25 cart loads of stable or other good manure on the turf, and plowing it under, I mark out my ground without either harrowing or bushing, and then drop one gill of the above mixture in each hill, either planting my corn close beside, or kicking on a little dirt with my foot over the mixture, and planting directly on it. I row both ways three and one half feet apart. In this way I have succeeded in getting fine crops. I generally use about 15 bushels of the hen manure mixture to the acre; but if I used no other manure to carry out the crop, I would certainly use at least 40 bushels of the same. I think most farmers miss it in running over too much ground to get a bushel of corn, when by manuring heavily they get the same grain on less ground, and make a saving in labor, and leave the soil in a better state for stocking down. E. ALLIN. *Pomfret, Conn.*

Poland and Imperial Oats.

MESSRS. EDITORS—I have seen "Poland Oats" and "Imperial Oats" advertised for seed in the "Cultivator." Will you describe them, and are they better than the common oats? I have a piece of ground that bore a fair crop of corn last year without manure, (it lies so that I can't manure with yard manure) that I want to sow with oats in the spring; now will it pay to sow guano on the oats? If so, how much does it want to the acre, and how apply it? The soil is loamy, very good for grass—not so good as a clay soil. J. T. *Litchfield Co., Ct.*

Poland oats are a heavy variety, and much esteemed by many, both for their weight and productiveness. But they are liable to shed their seed, unless cut very early, and many reject them on this account. In other words, opinions are divided on their general value. There is a black and white sort; the white appears to be most generally known and valued. We cannot give any distinct information on the Imperial oat, (also a very heavy sort,) from experience. Guano may benefit oats so as to "pay,"—more or less, according to the nature of the soil—three hundred pounds per acre may be sown broadcast, and harrowed in with the seed.

Root Pruning.

I saw somewhere in some of my papers, an article on "root pruning." I think the substance of the article I allude to is, that a circle should be dug around each tree about two feet, and the roots to be cut off, &c. Will you be pleased to refer me to that piece. J. H. *Monroe Co., Va.*

We are not aware of having published anything recently on this subject. Root pruning has been chiefly practiced by THOMAS RIVERS, the celebrated nurseryman, of Sawbridgeworth, England; but it is not generally considered as advantageous in the management of trees. It checks the growth, like transplanting, but less so; and if trees are growing too rapidly to bear freely, of course produces fruitfulness. But too rapid growth is not a common evil in this country—the reverse, from neglected culture, is far more frequent. Yet there may be cases where it may be of use. To prepare bearing trees for removal nothing could be better. Trees that are perfectly hardy may be root-pruned in autumn—those more tender in spring. The degree of close cutting will depend on the degree of check in growth which may be desired.

Cheap Paint.

If any of your readers wish to use a very cheap and substantial paint, of a drab color without lustre, let them mix water lime with skimmed milk, to a proper thickness to apply with a brush, and it is ready to use. It is too cheap almost to estimate, and any one can put it on who can use a paint brush. It will adhere well to wood, whether smooth or rough—to brick, stone or mortar, where oil paint has not been used, in which case it will cleave to some extent, and forms a very hard substance, as durable as the best oil paint. JAS. M. CLARK. *Throopsville.*

CHINESE SUGAR CANE.—I hope to hear more from your correspondents, of the Chinese sugar cane and millett—whether they can be profitably grown here in this cold corner, for cattle feed, for our old pastures are becoming deplorably poor from year to year. L. B. [We think about all has been said about the Chinese sugar cane that is necessary, until after another year's trial.]

Wanted—An Experimental Farm.

Agriculture is not one of the exact sciences. There are constantly recurring questions in every farmer's experience, which neither pencil and paper, nor all the rules and formulæ of the books can reach. Indeed it is not only true that calculation is here entirely at fault, but in no other department of human labor, perhaps, have so few investigations been made, capable of serving even as the foundation of further reasoning. Experiments have not been wanting to bring the other useful arts to a wonderful degree of advancement. While they are becoming more and more systematized, Agriculture is yet at fault for a true theory. While Science has scarcely left a single process in Mechanics of any kind, without important aid, the majority of Farmers are still in the habit of regarding her as little better than a charlatan. The few who have hoped the most from her occasional researches, can but confess to some disappointment in their results.

We do not refer to all this as cause for discouragement. So much has the importance of Agriculture gained upon the public mind of late, that, aside from what is said on the subject by pretenders, or merely for *bunkum*, there is really room for congratulation in the position it has now achieved. There appears to be a general willingness, even an anxiety to promote its interests. The great difficulties are to know How and Where. Any scheme that claims the public regard and support must first show itself able to *accomplish* something, and a way would then at once be opened to every head, and what is still more important as the world goes, to every pocket.

Every department of rural labor is now the subject of controversy, from our ignorance of those first principles which proper investigation and careful experiments might define at least with some degree of clearness. The relative values of different crops for feeding, of different manures for growing them, of different breeds of animals and different systems of culture, of unlike or opposite modes in the dairy, of dwarfs or standards, etc., in the orchard,—in fine, the true economy whether in-doors or in the field, at the stable or upon the pasture, in the granary, the meadow or the garden,—the whole is now involved in great confusion. We do not say that one system of general cultivation, one breed of each of the domestic animals, or one class of crops or manures is ever to be laid down by rule and measure for any one locality, even by all the experiments of centuries to come. But what might be reasonably hoped, is the collection of such a store of facts as would enable us to define with some exactitude the peculiar qualities of competing breeds, manures or systems, and their merits *relatively to each other*. No one at all conversant with the past history of Agricultural literature —no one who has read the recent papers in our columns from advocates of diverse ways of manuring, and of the various breeds of cattle, but must confess the great want under which we labor of such determinative facts and figures.

It is not out of place, and may furnish an incidental argument, to add that to their accumulation of the experience and practice of thousands all over the country, is owing much of the good accomplished by Agricultural Papers. By it they have done more for the farmer than all other means put together, for without it and without them, other means must have failed of general dissemination. By their success in eliciting this experience more than any thing else, are their respective claims upon the farmer to be ranked. And one which presents the views, and what is far more, the actual *doings* of multitudes of farmers, only lacks unity of plan and system of organization, to convert our whole territory, as it were, into one great Experimental Farm.

The term we have here used in a figure, brings us at once to the purpose of this article. There still seems to be a very general misunderstanding of the true distinction between the expressions "Model Farm" and "Experimental Farm"*—the former referring to one, which is in reality a model for the farmer who desires to make a good living and become wealthy,—the other applying simply to an establishment devoted to trials of different methods to determine their respective characteristics, and to investigations of the phenomena of Agriculture without regard to cost, with a view merely to accurate and systematic results. The former we now have in abundance. Such are those, the owners of which have from them achieved a position for themselves, a healthy and respectable education for their families, and a competence for their old age, here and there over the whole country. They are already in existence, already open to the inspection and emulation of others. But can we point to a single one of the latter in practical and effective operation? Experiments it is true are constantly going on, many of them the involuntary ones of common experience, to which we have referred as reported through the Agricultural press,—but they are not carefully conducted and closely observed enough, to assist materially in coming to reliable conclusions.

This blunder, of founding farm-establishments, with no clear idea as to which of the two ends named they are specifically intended to promote—has been the cause of no little misapprehension and opposition among all classes interested, and of thus delaying or altogether preventing the accomplishment of much good. From its very nature an Experimental Farm cannot meet its own expenses. A Model Farm on the other hand, is expected to do even more. And when farmers have seen, either here or abroad, a hybrid attempted between the two, they have gained little from the experiments carried on, and generally found much to laugh at in the attempt to set them examples of money-making, or to teach them and their sons the practice they have been all their lives acquiring.

Hence it results, as we think, that to establish genuine "Experiment-Stations," as they are called in Germany, is a legitimate object to receive here, as it has already done in Europe, the bounty and fostering care of government. They are, from the necessity of constant outlay and able scientific supervision, beyond the reach of the private skill and enterprise, to which we are now indebted for well conducted "model" farms in every state. To these last let the young man go who seeks to acquire the details of farming; but give us somewhere for Science and Practice to join hand-in-hand in investigating the great truths of Agriculture, in eliciting new principles and in clearing up the mists that obscure our knowledge of what we have hitherto acquired. We have erected Observatories to detect the secrets of the sky; those greater secrets buried in the earth beneath our feet are disregarded. In the first, we place a band of constant watchers and calculators; we endow the institution to meet all their expenses, and if in the course of years a single new asteroid dawns on the eye, or an unknown comet is seen to gleam in the far-off heavens, we are justly proud of the achievement. A little of the same public generosity and scientific skill bestowed upon an interest to which all classes are indebted for the very bread they eat, would by comparison scarcely seem out of place. Indeed had the money laid out upon the former, been applied with similar sagacity to exploring the principles of the latter, Agriculture might have witnessed the triumphs recorded in the progress of Astronomy, and the farmer of our day been made the superior of Varro or Virgil, in more than the mere difference between the implements and machinery of their respective ages.

If what has been said shall serve to give point to several suggestions of a similar kind, that have from time to time appeared in our columns, it will scarcely

* See an editorial in the Co. Gent., vol. vi, p. 329.

be expected that we should also add the details of such a plan as appears to us most likely to promise valuable, practical results. A brief hint or two and we will conclude. An Experimental Farm, to subserve the greatest good, need not be on a large and vastly expensive scale. Fifty acres of land, the necessary outfit of apparatus, &c., &c., with the services of a reliable, industrious and able agricultural chemist, and of a thorough practical farmer,—with the buildings to accommodate them in their duties, comprise all that is needed to constitute a good beginning. If the right men could be found—and the occasion, we trust, would not lack them—to give such an institution the character, and carry it on with the united zeal and fidelity necessary to its success, we cannot believe that either the state or national legislatures would be appealed to in vain for its endowment. The more complicated it is made at first, the more room for its becoming an asylum for political friends; but give it an inexpensive start, and let it feel its own way by degrees to a larger and larger sphere of operations, with the single aim of promoting its own legitimate objects, and we should have in a few years statistics of more value than many words, and proofs that mere opinion could not shake. The *education* the farmer requires, aside from that to be gained by witnessing the practical and business operations of good farming, differs but little from the proper education of any other man. But we must have a farm-observatory, an experiment-station of the proper kind, before we can hope to shed that light on Agriculture, and extend that aid to the farmers, of which they are now most in need.

Culture of Barley in Jefferson County.

Messrs. L. Tucker & Son—Your correspondent E. H. M., in Country Gentleman of Feb. 26th, inquires in reference to the raising of barley. In Jefferson co., N. Y., barley is becoming one of the most important crops we raise, and is usually sown the first week in May. In looking at my account book, I find in 1851, I sowed barley April 23d,—except that year, I have always sown from 5th to 12th May, and have never seeded less than three bushels per acre. The best crop barley I ever raised, there was four bushels seed per acre. It is just, however, to say that it was in 1854, one of those extraordinary dry seasons. It was sown May 12th, and did not rain enough after it was sown, to wet into mellow ground two inches until sometime in September; the soil was mellow, rich, and moist at the time of sowing; it came up quick, and being thick, the drouth did not affect the growth of the straw; and had it filled and been plump as our barley usually is, there would have been near sixty bushels per acre; I got forty bushels per acre. Four-fifths of the barley sown in our section of the country is the two-rowed. The four-rowed gives large straw, but far as my experience goes, not more than three-quarters as much grain per acre.

We sow and raise good barley on all of our best wheat lands—I mean on land with a mixture of clay or clay bottom, or hardpan, on gravelly soil and on muck—finally, the richer and mellower the soil, the better the crop. If you sow barley on greensward, be quite sure to give it a good coat of plaster when it is nicely up. Never sow barley on sandy, loamy soil, and always avoid limestone ridges, unless they are remarkably well plowed, deep and mellow, and then should it be a dry season you would stand a chance to get a light crop.

We usually get from 25 to 35 bushels per acre—40 bushels is a good crop, and there are those who talk of getting 60 bushels or over per acre. I raised 507 bushels last season on sixteen acres that had been plowed and cropped over half the time for the last forty years, and during that time there have not been to exceed fifty loads of manure put on the piece, and not one load in the last fourteen years. The soil on which it grew is gravelly, inclined to muck, with a clay bottom, some eight inches below the surface. About two-thirds of the piece was plowed in the fall, the balance in the spring; could see no perceptible difference in the barley. I offered it for a premium at our county fair—had no competitor—the committee reported too light a crop—that it did not come under the rules of the society, therefore received no premium.

It is a practice with many of our best farmers to have their barley land plowed in the fall, and it is not touched again until the seed is sown, and then well cultivated and dragged. There is no crop that should be so well got in, and thoroughly rolled down smooth and nice, and no crop that pays so well at present prices.

There are two important reasons why the barley field should be made smooth with the roller—the first comes under the common broad rule that applies to the rolling of all lands sown to spring crops; the second cause—it is less work to harvest three acres of smooth rolled land than two acres of unrolled, and should your land be full of small stones, lumps, or dry, you would find it difficult to rake clean. The heads and straws are slippery, therefore the greater care in fitting the ground is necessary.

Our barley is usually harvested in the fore part of August. Great care should be taken that it do not get too ripe. Our usual way of harvesting has been to cut with a scythe the same as hay, and cock it up the same day of cutting. It may and usually does remain in the cock for quite a length of time; it will there cure without heating, and is drawn direct from the cock to the barn with full as little trouble as our hay is drawn.

We consider the straw from an acre of barley, if properly harvested, about equal to one ton coarse clover hay for our cows or young stock. Daniel Parker. *Watertown, N. Y.*

Liquid Manure.

Please inform us whether liquid manure should be used as fresh as possible, or should it stand in the tanks and ferment awhile; and if it should be allowed to ferment, how much fermentation would be best. The gardeners say that stagnant water is poisonous to plants; if that be true, would not stagnant manure water be injurious when applied to growing plants. J. R. Comstock. *Mabbetsville.*

Liquid manure is best if applied while in a state of incipient fermentation. The nature of the soil should make a difference—when applied to clayey lands, fermentation appears to be retarded; but on sandy soil, it is accelerated,—probably in a way similar to that by which the manufacture of vinegar is hastened by passing it over fibrous substances, exposing it more completely to the action of the air.

If stagnant water contains any *poisonous* matter, it may be injurious, but not otherwise. A very refined lady once asked us if her beautiful flowers and delicate roses, should not be watered with "very pure" water, as she thought any foul matter would certainly poison them. She was evidently greatly shocked on hearing our reply, that the *manure*, which made them grow most luxuriantly and bloom most beautifully, was composed of all that was foul and offensive, (according to common perverted custom,) and that a portion of this foul matter in solution with the water, would be the very best thing she could apply to them. One of the most wonderful, we had almost said *miraculous* provisions of nature, is that by which decaying and fœtid matter is changed into the most beautiful and refreshing flowers—a purifying process constantly going forward on an immense scale.

Mice-Girdled Trees.

Much damage has been done the present winter in many places by mice; and inquiries are continually pouring in upon us for a remedy. We gave in a recent number directions how to prevent this evil by clean cultivation, and banking up, to which we must refer our many correspondents who have inquired on this subject; and last year we described minutely with figures, the mode adopted for saving trees already girdled. As we have many new subscribers, and as the season is approaching for applying this remedy, we copy these directions entire:

A number of young shoots or portions of the branches of apple trees are first provided, and as they are wanted, are sharpened in the form of a wedge at each end, being long enough to connect the upper and lower portions of the bark, separated by gnawing. A chisel, the breadth of which is about equal to the diameter of the shoots, is then driven into the bark, (say half an inch from the gnawed edge,) both above and below, and the prepared or sharpened shoot is then firmly pressed at each end into the cut made by the chisel. This is easily done by first bending the shoot outwards at the middle, so as to allow each end to enter, and then crowding it in again. The place must be then well waxed. The *edge* of the chisel must be placed so as to make a horizontal line in the bark, and then be driven nearly vertically upwards or downwards for the upper or lower parts of the bark. When the shoot is placed in the cut thus made, some portions of the line between the bark and the wood in both tree and shoot, must necessarily coincide, and as a consequence, the two parts almost invariably adhere and grow together—there is scarcely ever a failure. Fig. 1, represents a girdled tree; Fig. 2, the same with the shoots inserted; and Fig. 3, is an enlarged section, showing the position of the sharpened end of the shoot when in its place. The great advantage of this mode consists in the rapidity with which the work may be done, and the difficulty of displacing or knocking out these shoots when once in. There should always be a few stout stakes driven around each tree, to keep off plows, harrows or cultivators, which might otherwise strike the tree and loosen these shoots.

FIG. 1.

FIG. 2.

FIG. 3.

The shoots used were about one-fourth to one half an inch in diameter when applied, and they had already tripled their original size. Probably larger ones would be better, and the more numerous they are the greater will be the security, and the sooner they will grow and unite in one solid trunk.

In answer to our correspondents P. G. N. and J. C., we can inform them that the best time to perform this operation is in spring, at the usual grafting season, or as the buds begin to swell—and that girdled trees may be saved by covering the wound with grafting wax, soil, or compost, to keep it moist, without any other operation, provided a thin portion of the inner bark is left, even a mere film, as is often the case.

G. P. informs us he has nearly lost a fine orchard, and he proposes as a preventive, to peel rings of bark from forest saplings, two feet long, and allow them to dry till next winter, when a ring or tube of this kind is slipped around each tree, so that mice cannot reach the bark. This would probably answer, but *banking up* is equally efficacious, and easier.

Mulching Potatoes.

EDITORS CULTIVATOR AND CO. GENT.—I see much in your papers about raising potatoes, and I will state how I last season raised a crop, as it may be of some use to some of your readers. About the last of April I planted one-sixteenth of an acre of potatoes on the sod. I placed the potatoes 12 inches apart one way and 18 inches the other—covered them about four inches with rye straw, and then scattered some barnyard manure over them, so that they were covered about six inches. Before covering them, however, I put about a table spoonful of air-slacked lime around each potato. There were three or four stumps on the ground, and most of it was covered with moss. Nothing was done to the potatoes from the time they were planted until they were dug. The produce was 45 bushels—at the rate of 730 bushels per acre—without a rotten one among them—they were clean, and when cooked were as mealy as those in plowed ground.

This I call a cheap and good crop, and an early one too. Potatoes can be planted much earlier in this way than in the common method. The straw on this piece of ground is turned into manure, and the spot is now rich, and will come good again this year. JOHN MOERSCHY. *Beech Woods, Sullivan Co., N. Y.*

Fractions of an Acre for Experiments.

It is often very desirable to the farmer to measure off from a lot of land, fractions of one acre, for the purpose of making a series of experiments upon different modes of planting, cultivating or manuring. To facilitate this, we give below the measurement of the side of a square, containing the following fractional parts of an acre. A reference to this table will save some, perhaps, tedious calculation.

1-16 of an acre	contains	2,722½	sq. feet—about	52½	ft. sq.
⅛ "	"	5,445	" "	73¾	"
¼ "	"	10,890	" "	104¼	"
⅓ "	"	14,520	" "	121½	"
½ "	"	21,780	" "	147½	"
1 acre	"	43,560	" "	209	"
2 "	"	87,120	" "	295¼	"

We cannot but suggest to our readers the importance and advantage of combining with the usual duties of the farm, such experiments as may easily be conducted without any interruption of the work, and yet will often lead to the most decisive results. If one is to plant an acre of potatoes, for instance, divide it into quarters, and each quarter into eighths, if needed; and plant one part with small seed, another with large, another cut, and another whole; manure one part *in* the hill, another outside. On one quarter try *salt* to prevent the rot, on another lime, another ashes, &c. No man can do this without soon increasing his knowledge of agriculture, and soon after his wealth.

Best Manure for Roses.

MESSRS. EDITORS—If I cannot get guano for my roses, please tell me what manure is the next best. B.

Poultry and pigeon dung—any ordinary manure—the rose being a *free liver* luxuriates in rich soil. Providing capital horse dung is to be had in abundance, use that liberally—not without partial decomposition is not advisable, and but few will beat you. If yet to plant, dig and manure at least two feet in depth—if in a bed already planted, take off some of the surface soil, lay on three inches of rotten manure, then the soil. In the summer you can hardly have a more powerful stimulant to roses in poor land, than the drainage water from dung-hills and farm-yards. E. S.

Home-made Fertilizers.

"A Subscriber" at New Lebanon, correctly suggests the propriety of making use of the best of all our home materials for manure, instead of paying heavy prices for imported guano. We cannot, however, furnish him "a formula, with the exact proportions of each, for combining ashes, pond muck, night soil, droppings from fowls, salt and plaster, so as to make the best possible portable manure, that will tell quick," &c. Of all these substances, hen dung is the most concentrated and powerful, not being much inferior to guano, but it cannot be had in large quantities. Next to this is night soil, which is several times more powerful than ordinary yard-manure. All that these substances need is enough of a *dry*, absorbing substance, to retain all that would otherwise waste, pulverised charcoal being the best, but *thoroughly dried* loam or muck, or both, are as good, if in larger quantities, say three or four times the bulk of the manure. Pond muck varies greatly in its composition, and no general rule can be given for it—if it could be thoroughly dried it would be most valuable as an absorbent of other manure; but if applied wet, it may, in some cases, be of nearly no value. Ashes, salt and plaster, are often beneficial, but are to be applied in moderate quantities; and if used as component parts of the compost heap, they need not be in greater quantities than to make more than forty bushels of ashes, eight bushels of salt, or one bushel of plaster, per acre, after the compost is applied.

We never found plaster to possess the virtues ascribed to it, in sprinkling stables, and in other similar uses as an absorbent, *used dry*—and for the very simple reason, that it cannot be decomposed by the fertilizing portions of manure so long as it remains dry and undissolved.

Raising the Locust.

Messrs. Editors—What is the proper mode of raising the black locust tree for timber on prairie land? Can it be raised from seeds, and how, as to time, quantity to the acre, and manner of sprouting the same? On our Western prairies timber is very scarce, and we must resort to raising timber of some kind for fuel, fencing, &c. M. Plank. *Delphi, Carroll Co., Ia.*

The black locust, which is one of the many varieties of the Robinia pseudl-acacia, is, with the exception of its liability to the attacks of the borer, the most valuable tree for timber. In most places the insect has disappeared, where it was formerly destructive. There is no question that it is one of the few best trees for the western prairies, to employ in timber plantations and belts. The protection which such belts will afford cultivated fields and crops, will compel landowners to resort to them, aside from the immense value they must attain as timber. We would recommend a mixture of locust, chestnut, European larch, and perhaps of some other valuable and fast-growing trees, so that if any disaster happens to one, the others may take their place.

The land should first be reduced to a state of good cultivation, because the trees will grow about ten times as fast for the first few years, if well cultivated, than if neglected and grass grown. Plant the seeds where they are to grow finally; in hills with corn, so as wholly to occupy every third or fourth hill, in every second or third row. They will be cultivated with the corn, and grow rapidly, and lose nothing by transplanting, which checks them much. By placing them in rows, they may be easily plowed or cultivated (with crops or alone) any subsequent year; and when the timber is thinned, the wagon is easily driven through between the rows, without cutting a road. It may perhaps be needless to inform our correspondent, that locust seed will not grow unless scalded and *swollen* in hot water; nor chestnuts, unless they are taken perfectly fresh, and kept moist.

Transplanting Evergreens.

Messrs. Eds.—Be good enough to inform me through your next "Co. Gent.," the best and safest time for setting out Evergreens, and inform me of some of the most hardy and thrifty kinds, and oblige, P. B. C. *Amelia C. H., Va.*

Spring is the best time—although we have been very successful in removing them in winter, always observing the essential requisite to carry plenty of earth with the roots. A neighbor planted out fifty, taking them up as trees are usually done, but without a mass of earth attached—and all died but one, which barely survived. At the same time, (except that a part were removed in winter,) we set out fifteen, all with enough earth to hold them erect when merely set upon the ground, and all lived and grew rapidly.

The best and hardiest evergreens are these: *European*—Norway fir, Scotch pine, Austrian pine, Silver fir, Bohtan pine, and Siberian Arbor Vitæ. *American*—White pine, Hemlock, White Spruce, Balsam fir, Red Cedar, and American Arbor Vitæ.

Coal Ashes as a Manure.

Messrs. Editors—You have doubtless given us your opinion of the value of coal ashes, but if so, it has escaped my notice. You have several subscribers in this place, who make large quantities, and who differ in opinion with regard to its value. Some tell large stories about experiments with corn on a small scale, and others maintain that it is good for nothing, and put it on the highway.

Most of them make it from furnaces which are kindled with wood, consequently a portion is wood ashes, from which all residue is sifted.

Will you be kind enough to enlighten us, that we may not waste them any longer if they will pay to cart. If they are worth saving, please state the best mode of applying them, whether by composting with muck or stable manure, or any other commodity, and what crops they are best adapted to—whether they will benefit lawns and meadows spread broadcast—on corn, potatoes, &c. placed in the hill; and what kind of land is best adapted to their use. J. W. F. *Milford, Ct.*

Coal ashes are valuable to a certain degree, and should not be wasted. They consist mostly of earthy materials,—alumina and silica,—with variable portions of gypsum, carbonate of lime, oxide of iron, sometimes phosphate of lime, and with more or less half-burned coal. They contain but little potash, and that mostly derived from the wood used in starting the fires. Different kinds of coal vary much in composition.

They may be applied as a top-dressing to grass lands in autumn or winter—and to cultivated soil and harrowed in. Or they may be mixed with the manure or compost heap. We prefer them to all other purposes, for using daily in privies, as they destroy nearly all the traces of bad odor if daily scattered on the deposits, and being dry, they absorb the water, and render them convenient for spreading.

Their effects will vary much with the ashes from different sources, and with their application to different soils, and we must therefore leave this point to the results of experiment.

Inquiries and Answers.

TIMOTHY HAY.—Will you inform me and others, how many pounds of good timothy hay is equal to one pound of corn meal in nutriment? L. R. [According to both theory and experiment, the relative value of the two for ordinary feeding purposes, is about 50 pounds of corn to 100 of hay. Of course there must be variations with the quality of the hay, how fed, cut or uncut, wet or dry; and corn ground or unground, cooked or not, &c.]

PRUNES.—Please tell me the best two or three varieties of plums for drying, to make prunes of. G. P. R. *Goshen, N. Y.* [The Prune d'Agen stands high in Europe—also the German Prune, Fellenberg, and St. Martin's Quetsche. Manning's Long Blue would doubtless prove a good sort.]

HORSES.—Can you give me the post-office address of the owner of the horse Ethan Allen, and the Morgan horse that received the first premium at the last show of the United States Agricultural Society. E. S. H. COBB. *Hamlinton, Wayne Co., Pa.* [We do not know the address of the owner of "Ethan Allen." The prize referred to, at the last U. S. Ag. Society's exhibition, was awarded to "Sherman Black Hawk," owned by LEMUEL NORTH, Champlain, Clinton co., N. Y.]

CULTURE OF GRAPES AND APPLES. — What books can I get that will give me the best information on raising grapes and apples? Is black gravel, sandy soil, with south-eastern exposure, the right kind for grapes? Will it also do well for apples, peaches, &c? V. M. METCALF. *Athens, Tenn.* [As a general rule, any soil that will grow good corn, will raise a good apple orchard, provided that for several of the first years the young trees receive the same plowing, harrowing, and clean cultivation generally, that is required for a good crop of corn. The same kind of soil will do for grapes, provided it has a dry sub-soil, is loosened deeply, and made very rich. We may recommend Buchanan on the Grape, and the American Fruit Culturist as suitable books.]

A TEN DOLLAR SEWING MACHINE —In answer to numerous inquiries elicited by a brief notice of a machine on exhibition in this city, we may say that we know nothing of its practical workings, while the city papers announce that an injunction has been served upon its maker for the violation of other patents, and that any one using it will do so at the risk of prosecution.

BEARDLESS BARLEY.—*J. S. J.* You can procure the seed of this Barley from I. W. BRIGGS, West Macedon, Wayne Co., N. Y.

POULTRY.—*W. W. H.* The better way to decide your question will be to try the experiment yourself, as it will cost but little. The profit will depend mainly upon the care you bestow upon your fowls. If they are properly fed with a suitable variety of food, and their yard and roosts kept clean and sweet, it will probably pay to keep a few for your own use, but they are apt to become diseased when close confined.

OYSTER SHELLS.—Would oyster shells be beneficial to crops if pulverized without burning, and would they be worth more or less than burnt shells? Yours, N. E. C. *Ellington, Ct.* [As they contain, when unburnt, a small portion of animal matter, they would have more of the elements of fertility before burning, and would therefore be worth more, if they could be finely ground, so as to become intimately diffused through the soil.]

"SHORT AWN HORN GRASS."—I wish to inquire about a kind of winter grass that was introduced to the Farmers' Club of New-York by B. V. IVERSON, described in volume of Transactions of the American Institute of 1854, on pages 448 and 454 of said volume. I have watched the eastern agricultural papers to see if it had been tried any where, but have not seen any account of it. If you know any thing about it and its success, I wish you would notice it in your Co. Gent. If it is what Mr. Iverson describes it to be, and would agree with this climate, it would be very valuable in this section. Cattle and horses do well on our prairie grass until frost comes, and that spoils it. F. B. *Cedar Lake.* [This grass was described by Mr. IVERSON, in the Co. Gent. and Cult. for 1855, but we have never heard of any trial of it at the north.]

DISEASE IN PIGS.—I have lost several pigs, from two to five weeks old, when they were sucking—one litter of six three years since, that would weigh 25 lbs. each, and generally from one to three out of each litter, and at all seasons—generally the best. Will you inquire into this business, and give me a remedy if possible? Symptoms—weakness in every part of the limbs—no action in stomach—blood becomes stagnant, and hard breathing. I have broken off their teeth, given oil, exercised them, and cut off their ears, which will help them so that they will live sometimes a week. W. A. PATTERSON. *Piermont, N. H.*

POTATO PLANTER—Is there any machine to be had with which we can plant potatoes, that you know of? A. L. *Winspear, N. Y.* [We know of no such machine.]

PRICES OF FERTILIZERS.—A correspondent wishes us to publish a list of the prices "of the different fertilizers manufactured in our vicinity." The only manufactory of this kind, in this vicinity, is that of bone dust, the prices of which vary from $2 to $2.75 per barrel, according to fineness and the amount taken. For prices of other fertilizers, see advertisements.

PRATT'S DITCH DIGGER.—*H. L. W.* For answer to inquiry in relation to the merits of this machine, see Co. Gent. of Jan. 22, p. 61—or Cult. for March, p. 79.

PATENT ROOFING.—Can you inform me if E. P. Russell's patent roofing can be had in your city, and if so, who the proprietor is? ROBERT HOLMES. *Johnson, Vt.* [The receipt for the manufacture of this roofing, we are told is for sale by Z. M. SANDERS of this city, whom address.]

SAW MILL AND SHINGLE MACHINE. — *S. W. H., Winchester, Tenn.* We are unable to furnish the information you ask for in relation to these machines.

CURRANTS FOR SEED.—I would like to be informed whether currant seeds will produce the same variety of fruit as that from which they were taken. J. F. S. [Seeds of the currant generally produce fruit very nearly the same as the plant—they vary slightly, more or less, and in this way new and distinct varieties are gradually obtained. But superficial observers would not generally see any difference, and would pronounce them identically the same.

CLOVER SEED CLEANER.—I noticed in the last Co. GENT. that the question was asked, which is the best machine for cleaning clover seed, and price. I would recommend the machines made by T. Church & Co. of Penn.; I have been using them for the last year, and they have given good satisfaction. Price at shop, $55—freight on them to Albany, from $8 to $10. JAS. HARROWAY. *Richmondville, N. Y.*

I would like to ask your numerous readers if any of them can inform me of a cure for a disease among hogs, generally called "the thumps." A neighbor of mine lost $100 worth of hogs last year by this disease. It usually attacks pigs or shoats weighing from 30 to 100 lbs. Various remedies were tried or experimented on, but none seemed adapted to this peculiar disease. J. F. S. *East Orange, O.*

CAPONS.—I have frequently seen in New-York markets, fowls called "Capons." Please inform me how to proceed to make a Capon out of my roosters. A SUB.

SCRIBER. [We published in THE CULTIVATOR, 12 or 15 years since, a full description of the operation, with illustrations; but as there may have been some improvement since, we shall be obliged to any one who will give a satisfactory answer to the question of our correspondent.]

SCIENTIFIC FARMING.—I am a young practical farmer, eager to learn all I can about farming. In the course of my agricultural reading, I meet with the term "Scientific Farming." I feel at a loss to know the full meaning of the term. Will you, or some of your correspondents, enlighten me on this subject. J. W. L. *Frenchtown, N. J.* [The term "Scientific Farming" is often used quite vaguely, and with little appreciation of its true meaning. Strictly speaking, it is a union of *systematic practice*, with the knowledge which other sciences have usefully rendered agriculture. Agricultural chemistry, vegetable physiology, &c., are instances of *other* sciences applied to farming; but agricultural science itself, is a systematic arrangement and application of all the knowledge that both science and practice have developed—under which may be classed the principles of Rotation of Crops, of Plowing and Subsoiling, of the Manufacture and Application of Manures, Sheltering Animals, Breeding, &c. A mere collection of isolated facts, even if it should include all that is known in practical farming, is not the science of agriculture; but this knowledge *systematically arranged*, so as to be rationally applied.]

GRASS FOR PASTURES.—I wish to learn from you, or some of the numerous readers of THE CULTIVATOR, which is the most profitable grass to stock down a pasture with. Soil, slate loam. J. M. PARKER. *West Pawlet, Vt.*

STUMP PULLERS.—*B. P. C.* For price of stump pullers, address W. W. WILLIS, Orange, Mass., or R. H. HALL, Owego, N. Y.

SOWING PLASTER.—When is the best time to sow it? Some say in the winter; others in the spring. Will it benefit winter wheat to sow plaster on it in the fall? Does it kill the strength of plaster to grind it very fine? Does it lose its strength by keeping? When ground, will it benefit all kinds of land? What quantity should be applied? FRANCIS ROBERTSON. *Rheatown, Tenn.* [The best time to sow plaster is early in spring, or at the time the clover is starting to grow. It often succeeds finely sown later, or when the clover is a few inches high, if immediately washed by rain into the soil; but early sowing more uniformly succeeds. We have repeatedly heard the assertion that it benefits wheat if sown in autumn, but we have no experience nor distinct authenticated experiments to prove it. Plaster is always sulphate of lime, in the same uniform proportion, and neither fine grinding, nor long keeping, ever alters its composition or character. It does not benefit all soils alike—trial is needed to determine which—but most soils in this country are decidedly assisted. A bushel or two per acre is enough—in most cases a bushel has been found as good as any larger quantity.]

OSAGE HEDGES.—Will you, through THE CULTIVATOR, inform me whether the Osage Orange will stand our climate of north line of Pennsylvania. I have a nursery, last spring sowing. It has been said that they kill out. Should you think they won't stand the winter, what other kind is best? C. KIMBALL. *Tioga Co., Pa.* [Northern Pennsylvania has severe winters, but we think the Osage Orange would succeed well as a hedge even there, provided the growth ripens, and is not prolonged too late in autumn by planting on warm *mucky* soils. Let the hedge be planted over or near the line of an underdrain, and it would be less liable to injury. We have seen a hedge growing on dry soil, and consequently with well ripened shoots, that was not killed back six inches by a cold twenty-six degrees below zero. *Succulent* growth has been killed two or three feet by less severe cold. A partial cutting back by frost does no harm, as hedges generally are allowed to grow too tall, and a proper shearing will take off all the dead parts. Our correspondent will of course remember that the great cause of failure, (besides the omission of shearing,) is *neglected cultivation*—the soil must be clean and mellow, or but little growth can be expected. We know of no better hedge plant.]

PEAT.—Will the editor be good enough to state the peculiar qualities of *peat* as distinguished from swamp muck—to satisfy several inquirers? J. W. C. [Peat differs from muck in its degree of tenacity or cohesion. Muck is vegetable matter like peat, but is friable and crumbles to pieces. Peat may be cut into solid blocks of any form—it may be *coarse* or *fibrous*, or it may be fine and *compact*—when very compact it even admits a polish.]

BONE MANURE.—I wish to learn the best way of using old bones under ground. I bought a quantity last spring. I put some into hen manure, and let it lie to ferment, as directed in the Cultivator, but it did not. Can you inform me on the subject. C. K. [The most certain way to use bones, is to break and dissolve them by sulphuric acid, as we have recommended in former years. Next best, is either to grind the bones to dust, or dissolve or soften them in wetr ashes, afte being broken up, several weeks being required.]

REGISTERS FOR VENTILATION.—Be so kind as to inform me where I can procure Registers for the purpose of ventilation, and also the price. M. P. *Carroll Co., Ind.* [They may be procured of Richardson & Boynton, of Broadway, New-York, and may be ordered through most of the stove and hardware dealers, in large towns and cities, to whom they are mostly furnished at wholesale prices, and who should therefore sell them at New-York prices. The price varies with the size—the smaller, circular ones, (for small rooms,) costing we believe not far from one dollar—and other larger, up to two or three dollars, or more.]

ORCHARD GRASS.—I would like to ascertain if any one has used orchard grass in an orchard, as far north as Troy, N. Y., and what kind of a sod it makes, and whether stock eat it well. A. S. [The orchard grass is hardy in any part of the United States; it makes a good sod, grows better in the shade than most grasses, and stock eat it well, provided it is kept pastured short. When the stalks become old, they are hard and tough.]

BLACK KNOT IN PLUM TREES.—I have about fifty plum trees of the most choice varieties, that are just coming into bearing, and begin to show marks of this disease. I have a wash prepared for them, composed of flour sulphur, soft soap and chloride of lime. Do you think it will injure the trees? L. F. [It will not. Strong chloride of lime alone we have found useful to apply to the wounds after cutting—but cutting off is the main remedy—let the trees be examined every week, and all diseased parts removed as soon as they appear—this is a *certain remedy*, if timely applied.]

MIXING OF SEED.—I intend to plant some seed of the Chinese sugar cane, principally for the production of seed. Is it safe to plant it in the immediate vicinity of Indian corn? Is there no danger of adulteration? [There is none. They are different genera, and cannot mix.] The same question I would be glad to have answered in reference to growing turnip and cabbage seed near together. I noticed a remark in one of your late numbers, that a uniform, well-headed cabbage patch is rarely seen. May it not be that one of the causes of this is here indicated? IOTA. [They are different species of the same genus—within which crossing sometimes takes place, but we cannot say whether this rare occurrence ever happens between the cabbage and turnip.]

TOMATO WORMS.—If you can point out some easy method of getting rid of the large green worms on to-

matoes, or preventing their ravages, it will be vauable information. IOTA. [Probably the simplest, easiest, and certainly the most secure, is simply to *kill* them—we know of no better way.]

SULPHUR FOR CATTLE.—I wish to know if sulphur, when fed to cattle, is injurious? If not, in what quantities should it be fed, and what are its effects upon young cattle when fed in too large quantities? A SUBSCRIBER. [Sulphur is regarded as a useful medicine for cattle, being laxative and diaphoretic—and, combined with sassafras, a useful alterative. Half a table spoonful is administered daily. It is good for diseases of the skin, and we have been informed, will repel lice. If fed in much larger quantities than here mentioned, it will weaken and injure.]

VENTILATION, &c.—I am about to erect a dwelling-house, which I desire to warm and ventilate in the safest, most economical, and most convenient manner, and I wish to learn all I can upon the subject. Can you refer me to any book which gives the desired information? P. R. A. [We do not know of any American work, or any work adapted to the peculiar wants of this country. Our correspondent will find much on warming and ventilating, in the last chapter of Downing's Country Houses; but a considerable portion of it is only adapted to city structures. Still, there is much valuable suggestion.]

OSAGE ORANGE FROM SEED.—I wish to raise some Osage Orange plants for a hedge, and would like to know when is the best time to plant or put in the seed. In the spring of 1855, I planted, after they had been in soak for three days, and I supposed that they had come tolerable well. The spring following I perceived that not more than two-thirds had come the first season—the remainder the next. I have some quarts of seed, and think of putting them in sand and let them freeze, and sow in the spring. L. C. *Monroe Co.* [We have had no difficulty in making the seed come, by soaking it for 48 hours in warm water, when planted in the spring. WM. NEFF of Cincinnati, however, recommends planting in autumn, as he had found a considerable portion of his seed planted in the spring did not come up until the second season.]

WASHING MACHINE.—Would a washing machine wash well, made in the form of a long box, with wooden rods passing through near its ends, and the box sliding quickly back and forth, the clothes and suds striking against the rods? [We think this would not succeed well. The best washing machine we know, and which we have now used ten years with great economy and satisfaction, is figured and described in the Annual Register for 1857, page 339.]

CHURNING MILK AND CREAM.—Which is the most profitable for a farmer in churning by water, to churn the milk or the cream; whether the milk must be churned when new, or whether set in pans, or in some large vessel; and if so, how long; and which is the best churn, a stone one or a wooden one; and in how large quantities of milk at the most? A SUBSCRIBER.

STOCKING KNITTER—ROOFING CEMENT.—Could you inform me where and what price the most approved "Stocking Knitters" are to be obtained? Also what Cement preparation for roofing has been found the most durable and reliable in all weather? J. P. *Whitestown, N. Y.* [Will some of our correspondents please furnish the desired information?]

DOES FREEZING ALWAYS SPOIL POTATOES?—During the past severely cold winter, many in these parts have lost their potatoes in consequence of freezing. It is claimed by some that if potatoes are well covered up, either in barrels or bins, and allowed to remain so until thoroughly thawed out, that the freezing will not materially injure them. For the truth of this theory I cannot vouch from actual experiment, but it is easily tried, and if true, it is something worth knowing. W. E. COWLES. *West Winsted, Ct.*

MILDEW ON GOOSEBERRIES.—I see by the papers, many complaints of the mildew on gooseberries. I have found that, for bushes that were affected by it, to scrape off the rough bark in early spring, and apply soft soap freely to the trunk, branches and roots, as far as you can reach them, to be a certain cure, and to water young bushes with soap and water frequently during the summer, a preventive. L. FAIRBANKS. *Whitly, C. W.*

LEGS OF A COLT AFFECTED.—Can you inform me what is the matter with a colt we have, and what will *cure him*, or what is *best to try*. He does not seem to have the use of his hind legs. If he attempts to back quick, he will be very apt to fall. In fact he cannot raise his hind feet when he steps backward. If he lays down in a stable, he cannot get up without help; and when he walks or trots he swings back and forth with his hind legs and back part of his body. If you can tell me what is the matter, and what will cure him, you will oblige at least one of your subscribers. N. G. P.

CURING MILLET.—In answer to your correspondent J. S., in reference to the best mode of cutting and curing millet for fodder—my experience has taught me that the best time to cut it, is when the seed in the top of the head is turning a very little yellow; then mow it, and let it partly cure in the swath; then rake it with a revolving rake, and put it in cock; then proceed with the finishing process of curing, the same as with making clover hay. A. H. *Jonesville, N. Y.*

DOGS.—If Mr. J. M. PARKER cannot find a rat terrier, and can find a thoroughbred bull terrier, he will do as well, as he will have a *dog of all work*. They have all the sprightliness, sagacity, quick scent, and affection for master and home, that a rat terrier possesses, with all the courage of a bull dog, without his surliness. I have one that keeps my premises clear of rats, and my poultry-yard clear of night visitors. I have known him to kill a skunk at one snap, so quick that it forgot its weapons, and the dog returned from the contest unperfumed. Although a small dog, I never knew him to hesitate to catch any animal when bid, and yet he is under perfect subjection. L. R. *Fredonia.*

QUESTION.—Can some of your readers inform us as to the propriety of harrowing old meadows to render them more productive? At what season of the year should it be done? E. O. H. *Lockport, N. Y.*

CHURNS.—"A Windsor Co. (Vt.) Farmer," sends us an article on Butter-making, the main object of which is to recommend a patent churn, which he has used to great satisfaction for two years. The writer says he does not know the patentee, and has no interest in the churn, but feels it his duty to speak out in favor of an article he has found so valuable. We do not doubt the churn is a good one, and we have already permitted it to be twice highly recommended in this paper. But now we think it best for the patentee to advertise the merits of his ware, at his own expense.

WASHING FLUID, &c.—If you think best, say in your paper, that washing fluid, containing Spirits of Turpentine, should never be used—neither should Emetic Tartar be taken into the human stomach. E. MAXSON. *West Edmeston, N. Y.*

LEMUEL NORTH of Champlain, N. Y., has disposed of his interest in the famous horse "Sherman Black Hawk." He is now owned by D. A. BENNETT of Bridport, Vt., and D. WARREN of Worcester, Mass., and will be kept at the stable of Mr. B. in Bridport, the coming season.

How to Improve Old Meadows.

MESSRS. TUCKER & SON—On page 139 of the Country Gentleman, there is a communication from Mr. TROWBRIDGE of Oneida county, on the subject of improving meadows. As every plant that is cultivated is more or less dependant on grass, as well as animals and even man himself, it is with no ordinary degree of reluctance that I approach the subject. Mr. T. says, "his practice has been for some years to mow about the first week in July; let the after crop stand until from the 1st to the 18th of September, then turn it under carefully, spread on from ten to fifteen loads of well rotted manure, prepared beforehand, and sow from twelve to fifteen quarts of herdsgrass seed." He considers the green crop he turns under as good as ten loads of manure to the acre. There must be some mistake. Is it possible that sufficient grass grows after mowing, to the middle of September, to equal ten loads of manure? If so, there is no need of improving such a meadow. If Mr. T. means that the sod he turns under is equal to ten loads of manure, he must have a very thin, starved sod if it would not be equal to four or five times that amount. This plowing up meadows in Oneida county, where a drouth is unknown, does not strike me very favorably, and I would suggest other remedies for Mr. T.'s consideration. Would not the ten or twelve loads of well rotted manure prepared nicely, spread as a top-dressing, answer the purpose? If not, plow up some sod along the road side and burn it. A common laborer can average one hundred bushels per day the summer through, with no other expense than two or three pieces of old rails or stumps to start the fire; when got agoing, keep putting on sods day after day until the pit is done. Spread one hundred bushels to the acre; which will cost one dollar for the day's work, and two dollars for a man and team to haul one day and spread, making three dollars. This is much cheaper than Mr. T. can plow up, cultivate, pick stone, and roll, with much better hay. The new seeded will be coarse for one or two years at least, and cattle and sheep will not do more than half as well on such hay as on fine solid grass, grown on an old thick sod. If the bulk of the new seeded should exceed the old, the substance would not be there. If there is no place on the road-side where you can procure sods for ashes, then take the washings of the road, or what is called quick sands, that have washed from the hills or fields, (though nothing will grow on a bank of quick sand,) which is one of the best materials, after barn-yard manure and ashes, which I have tried for mulching grass roots. Spread it on dry, and when the rain comes it makes the same material which the Mohawk, Chemung, Ohio, or Nile leave, after overflowing their banks, and in a few years your meadows will become as fat as those along the banks of those rivers. When the time comes that the raising of grain is more profitable than the cultivation of grass, you will have a sod to plow in sufficiently thick to make one hundred loads of manure to the acre, with a great advantage over the meadows which have been renovated by those rivers, as every overflow washes the sediment off the plowed land.

If neither of the above remedies meet with favor, I would suggest still another, and that is to mow and pasture in the same field—by putting in cattle sufficient to eat off a portion of the grass, then mow what is left, part early and the balance late. If you have thistles, daisies, or weeds scattered over your field, or any thing else which you wish to destroy, mow those portions first, as nothing but grass can stand the scythe for any considerable length of time unless allowed to seed. Fatting cattle by this process will enrich land very fast

In conclusion, if nothing else will answer, and the meadow must be plowed up, I think I can suggest a more profitable way than to seed without any crop. Believing as I do, that there are crops which grass seed will take with quite as well as without, I would take the ground where Mr. T left it, plowed well in the fall, and in the spring sow it to spring rye. Instead of sowing twelve or fifteen quarts of herdsgrass only, I would mix with it two quarts of red clover, two quarts of white clover, and four of red top; not that I am an admirer of red clover for either pasture or hay on natural grass land, but it helps to cover all the vacant spots that would be left by timothy alone. It is a great advantage to keep out all foul trash, and the additional grasses are worth something for feed. The rye grows so far from the ground without leaves that there is no danger of smothering the young grass, and it makes a shade to prevent the hot sun from injuring it. The rye would give from twenty to twenty-five bushels to the acre, worth at least six shillings per bushel, and one and a half tons of straw, worth three dollars per ton, which would leave a large profit over seeding without a crop. The top-dressing is undoubtedly the most economical way of using manure, as I have no doubt that one load spread on the top of the ground where the land is seeded, in three years time will make a richer sod to plow under, than two loads plowed in, and I would not take much pains to rot it. I would take great pains to throw plaster all over the yard, and have a portion of my hay cut sufficiently late that a part of the seed would grow. I would feed that occasionally, and see that it was scattered evenly over that portion of my manure which is intended for top-dressing, keeping the ripe hay entirely away from manure which I intend to plow in, which is all for crops that I hoe, and none other. A. B. DICKINSON. *Hornby, N. Y.*

A Word about Potatoes.

I noticed in THE CULTIVATOR for Feb., 1857, a correspondent under the cognomen of R., Danvers, Mass., gives some good practical lessons for raising some very good crops; but he appears to me to have partially failed in his potato crop. I think I can teach him, and perhaps some others, something about raising potatoes. I have been experimenting more or less with potatoes for about 30 years, and I have come to the conclusion that there has been no infallible remedy found out to prevent the rot—and that the best and largest crops of potatoes are raised on a pretty dry gravelly or sandy loam. If R. will choose such a soil, whether stubble or greensward — draw on about 20 cords of good horse manure as soon as the ground is settled in the spring, say the last of April or first of May—spread it evenly over the ground, and then plow it in about nine inches deep—drag it over a little—mark it out with a one horse plow three and a half feet each way, and about two inches deep, and then cut his potatoes so as to leave two eyes on each piece, and drop three pieces in a hill, and the pieces three inches apart in the shape of a diamond, where the rows cross each other, and then cover with two inches of dirt; and as soon as they get three inches high, cultivate between the rows, and hill up a little, or nearly or quite covering the top, making a rather broad flat hill; and when they get about a foot higher, give them another good cultivating by going twice in a row each way, and give them another thorough hoeing, raising the earth up about three inches higher, making a rather flat hill of about 58 inches in circumference; then if many weeds start up, go over the ground with the hoe before any of the weeds get over two or three inches high, but be careful and not bruise any of the vines. Then leave them until they are ripe or the frost has killed the vines, and I can almost insure him from two to three hundred bushels, where he gets but 175 now.

I have raised from 300 to 500 bushels per acre by the above management in favorable seasons, of the old fashioned pinkeyes, the best eating potato that I ever tasted, but I would advise every one to choose that kind best adapted to the soil, for I find every kind of potato does better on one kind of soil than it does on many others. A FARMER. *Thornhill, Onondaga Co*

Notes for the Month.

DIRECTION OF FRUIT PACKAGES.—Our correspondent E. L. R., of Baltimore, is informed that packages of fruit, &c., intended for Union Springs, should not be sent to Albany, but directly to the former place, which is 180 miles west of Albany. They should be directed, "J. J. THOMAS, Auburn, N. Y., by Mundy's line to U. Springs."

We can also state, in answer to his inquiry, that Union Springs is not a "fashionable watering place," but a commercial village on the banks of Cayuga Lake, deriving its name from two springs of water, of ample size to drive two large grist-mills, a plaster-mill, saw-mill, &c., which possess the advantages of never freezing, and of being undisturbed by floods. In addition to these remarkable springs, the place has been long noted for its extensive bed of plaster or gypsum, and its quarries of limestone—the latter having already furnished nearly a million tons for building purposes. mostly along the line of the Erie Canal, with which Cayuga Lake is connected in navigation. The village has also a manufactory of excellent draining tile.

ALLEN'S AMERICAN SHORT-HORN HERD BOOK.—We can now supply copies of this work, which should be in the hands of every one interested in this breed of cattle—price for Vol. I, $3—Vol. II, $6—for the two Vols. $9.

CATTLE CHEWING BONES AND LEATHER.—A correspondent near Bridgeport, Conn., has a piece of worn-out land, and his cattle do not thrive on the hay from it—chewing bones, leather, &c., for hours together. He desires a remedy for the evil, including of course the best way of enriching the land.

WEIGHTS AND MEASURES.—"Who is right," is informed that we can find no such erroneous table of weights and measures in the Cultivator, as he refers to. If he will name the vol. and page, we will make the necessary correction.

SOUTH DOWN MUTTON.—We are indebted to SAMUEL THORNE, Esq., of Thornedale, Dutchess Co., for a saddle of mutton from one of his beautiful South Down sheep—a breed which has no equal for the richness and delicacy of its mutton. Its weight was 52½ lbs.

DIOSCOREA BATATUS.—J. B. GARBER of Columbia, Pa., a very intelligent and well known cultivator, gives his experience with this famous plant, in the last No. of the Horticulturist. He has had the root cooked, and considers it better than either the Irish or Sweet potato. He entertains high hopes of its great success—thinks "its yield *must be* enormous"—and intends to plant all the small tubers, "with every *prospect* of great success." We hope he may not be disappointed; but we have always had the odd notion of regarding with more importance, the results of experiments already performed than those in "prospect." The trial of its flavor, however, he has already made, and is certainly worthy of attention, as his statements are fully reliable.

"CLOVER SEED" FROM THE SANDWICH ISLANDS.—We are indebted to FREDERICK DUPONT, Maliawoa, East Maui, Sandwich Islands, for seeds of a plant which is there highly esteemed, and goes by the name of "Spanish clover," though Mr. D. says he does not remember ever meeting with it in any of the Spanish colonies of America. He says—"Its leaf resembles that of the red clover, but I think it has much larger roots. It stands drought remarkably well, but whether it will stand your cold winters remains to be proved. If it will, I am confident it will yield twice as much as red clover. We had an uncommon dry summer the past season, and had it not been for this clover there would have been a loss of some thousands of cattle; but things have a fine look at present (Dec. 6, 1856,) and farming is going on briskly. The natives are engaged in putting wheat quite extensively."

CATTLE SALES.—Dr. WENDELL of this city, has recently sold his fine young Short-Horn bull "Beaufort," by "Lord Ducie," to Mr. D. B. HOLCOMB of Chester, Mass. Beaufort is a good animal, and will not fail to make his mark.

The Devon bull "Wyandotte," 20 months old, bred by C. S. WAINWRIGHT, Esq., Rhinebeck, passed through this city last week, to Elyria, O., having been purchased by CHARLES ELY, Esq. He was a very fine animal, and does great credit to his breeder.

SEEDLING POTATOES.—We very cheerfully invite attention to the advertisement of Rev. C. E. GOODRICH, who has devoted much time and money to his experiments in raising seedling potatoes.

GEORGE HARTSHORN, Esq., of Locust Grove, Rahway, N. J., has recently purchased of DANIEL B. HAIGHT of Dover Plains, Dutchess Co., N. Y., three fine Short-Horn cows, in calf to his fine young bull "Highflyer," (A. H. B. 528,) one of the best bulls in the country. Highflyer was purchased of SAMUEL THORNE of Thornedale—sired by "Duke of Gloster" from Mr. Thorne's imported cow "Dinah Gwynne." We consider this purchase a valuable addition to the Short-Horns of New Jersey.

FIRST AND SECOND REPORT OF THE NOXIOUS, BENEFICIAL AND OTHER INSECTS of the State of New-York—Made to the State Agricultural Society, pursuant to an Appropriation for this purpose from the Legislature of the State. By ASA FITCH, M. D., Entomologist of the N. Y. State Ag. Society; Member of the Entomological Society of France, &c., &c.

Those who have been in the habit of reading Dr. FITCH'S articles in our columns will need no recommendation from us, of the clear, plain and practical manner in which they are written, and the thorough knowledge they manifest of every point discussed. The above volume has been issued in excellent style, and a few copies placed on sale at our office. Price by mail, post-paid, $1.25.

JOHN T. ANDREW, Esq., of West-Cornwall, Ct., has purchased of the estate of Charles Tracy, Esq., of Round Hill Farm, Lisbon, Ct., the beautiful Devon cow "Fancy," and also the Devon heifer "Alice," both of which have taken first prizes, and are among the best Devons of the State. T.

GOOD HOGS.—Mr. ELIHU GIFFORD of Easton, N. Y., has recently slaughtered and sold ten hogs, whose separate weights were 623, 533, 458, 407, 557, 438, 498, 500, 505, and 515 lbs.—average, 503 lbs.—total, 5,034 lbs.

SKELETON OF BLACK HAWK.—The remains of this celebrated horse, who it will be remembered died in December last, at the stable of his owner, DAVID HILL, Esq., of Bridport, Vt., have been disinterred, and the bones cleansed and prepared for preservation in the museum of the Veterinary College of Boston.

VALUABLE HERBARIUM.—Mrs. RIEHL, widow of the late Nicholas Riehl of St. Louis, has in her possession, a most valuable Herbarium, containing seven thousand specimens of plants, divided into three parts—first, those from Switzerland, the Alps, and Pyrenees—second, those of Europe, and third, those of the United States—all in good order. A purchaser is wanted for this valuable collection, which will be sold at less than half the cost of its collection and preservation. Address EMIL RIEHL, St. Louis, Mo.

DISTILLATION OF THE BEET.—We see it stated in our last English papers, that over $10,000,000 in value of beet-root spirits were distilled in France the last year, while the amount in 1853, was only $100,000—thus

showing the entire success of the business. This success has induced the excise commissioners of England, to establish an experimental beet-root distillery, which is now in operation in Farningham in Kent, and which promises to equal the expectations which have been excited in regard to it.

FRUITS AND VEGETABLES OF OREGON.—Extract of a letter dated St. Helens, Oregon, Dec. 5, 1856:—The past season has been very wet and cool, but the crops are all good. Our potatoes are *very* good. I have many weighing from three to four pounds each, and one weighed five pounds. I have ruta bagas weighing any weight up to 35 lbs., and other vegetables in proportion. We have some monster apples and pears here, weighing over two lbs. I have an apple tree, six years from the bud, and four years transplanted, which, at two feet from the ground, measures four inches in diameter, and this season I took from it 36 dozen apples and sold them for one dollar per dozen—variety, the Rambo.

WHEAT IN VERMONT.—The Vermont State Ag. Society at its late meeting, awarded premiums to Nathan Cushing of Woodstock and N. A. Fletcher of Bridport, for winter wheat—to the former for forty-two bushels per acre, and to the latter for forty bushels per acre. Both grew the same variety—the White Flint. These awards show that wheat can be profitably grown in Vermont, while it is well known that no state in the Union produces better crops of Indian corn, rye, oats, potatoes, &c., or affords better horses, sheep, butter or cheese. With such capacities for production, with a wholesome though rigorous climate, and with the best facilites for getting their products to market, it surprises us that such numbers of its people are constantly pouring forth from its borders in the hope of bettering their condition in the far west.

A GOOD COW.—If you please you may publish the following, which I received directly from the owner of the cow, and who is a reliable man. SAMUEL BRAND of Leonardsville, Madison Co., N. Y., says he has a cow (kept on grass only) from which he milked sixty-two pounds in a day last June, and she gave the same quantity for three days in succession, with the exception of a half of a pound. Said he made eighteen pounds and fourteen ounces of butter in a week from her. Beat that who can. E. M.

LARGE TURKEYS.—It did not occur to me while in your office, that I had the weight of the turkies grown by Jerome Pike, Esq., at Pomfret, Ct., from the same stock Mr. Allin has, and will now send it to you. I saw them weighed when sold:

16 goblers weighed,	.....	272 lbs.
6 hens do	.....	64 "
		336 "

Five of these goblers weighed 106 lbs. dressed. G. T.

MURIATE OF LIME.—Has Gould's muriate lime reached any of your farmers yet? I bought a couple of bags last year, and used it according to the directions; but it killed my cabbage, pumpkins and squashes, and also made me dig forty or fifty hills to get a bushel of potatoes—so I shall not praise it. When will the makers of artificial manures learn to be honest? Guano does very well with me, but, query, does it not require a little more of it per acre than has often been represented? L. BUTTERFIELD. *Tyngsboro, Mass.*

LARGE PIG.—I slaughtered a hog, 8th Dec., 1856, which weighed when dressed, 562 lbs.—19 months old—he was kept for a seed hog until the latter part of June last, and had nothing more than ordinary keeping till that time. JOHN C. DECKER. *Kerhonkson, N. Y.*

REAPERS AND MOWERS.—According to statistical tables furnished by the Chicago papers, there were manufactured in that city in 1854, 1,800 reapers and mowers—in 1855, 3,286, and in 1856, 5,860.

To Prevent Cows from Kicking.

MESSRS. EDITORS—I have owned for the past three years a cow that was very valuable for her milking qualities, but very troublesome on account of her kicking propensities. After I had made up my mind to dispose of her on account of her bad habit, I happened to employ an Englishman, to whom I gave the advice of caution upon his first essay at milking. He smiled and said he could easily prevent that, and proceeded to pass a rope about her body just in front of her bag, tying it in a simple knot upon her back. The rope was not drawn very tight, and to my utter surprise the cow stood perfectly quiet through the process of milking, not as much as offering to raise her foot. To test the remedy I directed him the next morning to intermit the use of the rope, and she immediately returned to her old habit. I had previously tried the method suggested in the Country Gentleman some weeks since, of tying up the fore leg, but without avail. She would still attempt to kick and in the effort throw herself. I have not had the opportunity of testing it with any other cow, but as it proved so entirely successful in the instance named (and my man informs me he has seen it repeatedly tried and with uniform success) that I have thought proper to give you the result of my own experience, hoping that others may be equally profited by it. A. C. POWELL. *Syracuse.*

Soft Soap.

To observe the following rules, women will not have many failures in making good soap:

In setting leach, raise a perforated bottom just above the hole where the lye escapes. On that, place straw enough to prevent the ashes from going through. Then throw in about one peck of slaked lime, leveling off the same over the straw. Put into the centre of your heap of ashes about one half bushel of lime to ten of ashes. Slake the lime and mix well with ashes. Fill your leach, pounding down the ashes as hard as your strength will permit, or at least that the lye will not get through in less than three days. On the top of the ashes put some straw and flat stone on which to pour water. Thus completed, commence with water, but not rapidly, for the longer it may be soaking through, the better will be the lye.

Your leach being prepared, turn your attention to your grease, which is most generally a poor article. Twenty pounds of good tallow is required for a barrel of soap, and it is often the case that fifty pounds of common house grease has not the body of twenty pounds of tallow. You should, in order to know the *real* quantity of good stock you have, always boil and clean your grease, and throw all the refuse away, for it is valueless in making soap, and is generally the great cause of preventing the perfect amalgamation of the grease and lye, containing, as it always does, more or less *salt*, which is a positive bar to making *soft* soap, while an absolutely necessary ingredient in the manufacture of *hard* soap.

Having then got a clean grease and good caustic lye, such as you will have from a leach filled as above suggested, you will have no difficulty, over a gentle fire, of having good soap in a few hours.

Practical soap boilers have no guide for the quantity of lye for a certain quantity of fat, as the lye differs much in its strength; they rely therefore entirely on their taste. In making soft soap, when it boils up black in its color, it has generally lye enough, and should then be increased by weak lye. Adding water is wrong. Soap should always be increased with lye, no matter how weak the same may be. A. C. W.

BUTTER PER COW.—The three dairies which received the prizes of the Caledonia Co. (Vt.) Ag. Society last year, averaged 198½ lbs.—173⅛ lbs., and 150 lbs. per cow.

Trial of Stump Machines.

MESSRS. TUCKER & SON.—We have a stump machine manufactured in this place, (Owego) which we think superior to anything ever yet presented before the public. It is easily conveyed from place to place by one horse, which is all that is required in horse or ox labor, and with the additional labor of two men and a boy, is capable of pulling the largest kind of stumps in a very short time.

This machine is also well adapted to move heavy buildings, the power being very great.

Now I would propose a trial of Stump Machines at the next State Fair. I do not see why a liberal premium could not be given for a match of this kind. It would be a very interesting scene, and there are plenty of stumps close to Buffalo to make this important trial, so well calculated to benefit community.

Nothing would improve the country so much as a liberal demand for these machines; not an exciting demand, but a steady and persevering operating one, such as will banish these incumbering drawbacks to the farmer. It is not their unsightly appearance only, but the land now occupied by stumps would, when pulled, add much to the beauty of the country, in addition to the immense profit the occupying of the soil they now stand upon, would reap by their banishment.

I do not see why a trial of these machines would not be more important to the State Society and interesting to the public, than any other part of the exhibition.

My impression is, that stump pulling is a more important business than is generally imagined, and has been overlooked by the managing officers of the State Society. To plow round a stump year after year is not only vexatious, but very unprofitable. This I know from experience. Therefore I would propose to the Society to offer a liberal premium for the best stump machine, say $50 to $100, electing proper judges to decide. It would draw a crowd from a distance to witness a dozen of these machines in operation, earnestly striving for a laudable prize, and they could learn from occular demonstration how easily these pests can be rooted out; almost as quickly as plowing once round them. WM. H. SOTHAM. *Owego, N. Y.*

Prolapsus Uteri in Cows.

The case of the cow mentioned by W. F. of New-Hampshire, appears to be that of *prolapsus uteri*. We do not know a preventive, but Dr. Dadd recommends washing the protruded part with a small quantity of powdered bayberry, to remove any extraneous substance; it is then to be pushed in with one hand by successive portions while it is retained by the other; and after being replaced, if it does not contract sufficiently to maintain its place, a brush must be rubbed around the belly and back to excite contraction. A pad wet in alum water must then be applied to the part externally, and kept there by a bandage if necessary as long as it appears to be required. Before the process is commenced, the cow should be made to rise, if lying down, and the protruded part held by a cloth placed under it, and drawn up by two persons holding the ends.

Valuable experience of any of our correspondents on this subject would be gladly received.

Cure for Mange in Swine.

MESSRS. TUCKER & SON—In one of the late numbers of the Country Gentleman inquiry was made for something that would cure the mange in pigs, and as one my neighbors has recently cured a very bad case, I have concluded to send you his method.

He first thoroughly washed his pig with soap-suds, with the view of getting him as free from dirt as possible, and then once every day wet him with a solution of corrosive sublimate, made by dissolving sixteen grains of corrosive sublimate in a pint of rain water. The pig was as bad as need be—mangy from snout to tail—and the application of this wash to the affected parts resulted in a cure in about three weeks.

It may be well to note that care must be taken in the use of this solution, for it is a very active poison. D. W. B. *St. Catharines, C. W.*

Bee House.

In reply to J. C. T., of Ann Arbor, Mich., I would say the objection to his proposed plan of a bee house will be, first, that after he has built an expensive house, it will be almost impossible to resist the temptation to make the most of it, and crowd his stocks too close. Second, the opening on each side of only eight inches, (which I suppose is for the passage of the bees,) with the hives setting back nearly two feet, or even but two inches, is a bad arrangement. The bees on their return will be confused for want of objects to distinguish their own hive—will enter the wrong one, and be destroyed. If there is any increase, the young queens will be subject to the same fatal mistake; and the consequence will be, loss of the colony. This arrangement would multiply the chances of loss tenfold over one where the hive is conspicuous, and a proper distance from others.

The objection to a basement is that it raises the bees too far from the ground—the wind affects them more. The nearer the earth the better. I cannot imagine any paying advantages with such a house. I am satisfied that bees will do much better when each hive stands four feet from its neighbor, and a separate stand, cover, &c., for each.

The size af his hive is much too small, and the shape a bad one for a cold climate. A hive for any section, should never contain less than a cubic foot. There must be brood combs sufficient to keep up the numbers of the colony, and to store a supply for winter. A hive for this section (latitude near 43 degrees) is not safe with much less than 2,000 inches, inside measure.

As for the merits of the platform hive, I never discovered enough to warrant a return of the expense of construction—I might add, or to pay for *working* it, if furnished gratis! I have had the "right" to use said hive several years. I never did expect, and probably never shall make a trial of it. If J. C. T. expects to increase his stocks by the plan recommended to me as Davis' I would suggest the possibility of a disappointment. Also of the feed recommended.

Now as Mr. T. relative to bee-keeping says, he "knows but very little about it experimentally," I would advise him to listen with extreme caution to all interested twaddle coming from patent hive venders! If he would reject all of them, and take the simple old box hive, his chances of success would be much greater. I speak from experience. I have yet to find the man whose uniform success has surpassed my own. For more than a quarter of a century I have adhered to simplicity, and am not indebted to a single patent, when counting my stocks by the hundred. It is available for obtaining the surplus honey in any form that fancy may dictate; it is as pure in quality, as much in quantity, with an expense of fifty cents, as if ten dollars had been used for the purpose. M. QUINBY, *Author of "Mysteries of Bee-Keeping Explained." St. Johnsville, N. Y.*

HAND CULTIVATOR.—I wish information in regard to the hand cultivator. Does it answer the purpose it was intended for, namely, for the garden? Where can it be found, price, &c.? W. K. *Huntley Grove, Ill.*

☞ We learn that SAML. THORNE, Esq., of Thornedale, Dutchess Co., has just purchased the entire Short-horn herds of Col. LEWIS G. MORRIS and the late Mr. BECAR. It will be remembered that Col. MORRIS at his sale in last June, disposed of all his Devons, and only reserved the choicest of his Short-horns. These, together with the magnificent herd left by Mr. BECAR, numbering in all *fifty-one head*, form an acquisition, unprecedented as we believe in any previous transactions of the kind in this country, or perhaps abroad. While we are sincerely sorry to lose Col. M. from a pursuit which he entered upon with a liberality and enterprise then unequalled, and since rarely surpassed, and which he has ever conducted with a degree of energy and judgment only paralleled by his success—at the same time we can but congratulate ourselves on the hands into which the fruits of his skill and taste have fallen. And this, not only because Mr. THORNE has already fully manifested how well he is qualified to undertake the additional responsibilities to which he now succeeds, but also because in consolidating with his own the only collections which were before its immediate rivals, he has together obtained one, in which are centered more of the best strains of blood in greater beauty and profusion, than any other, with perhaps but one or two exceptions, in the world. This is a matter in which we may justly feel some State pride, and which we are sure is far better for the future interests of the stock, than if it had been scattered at a general auction from one end of the country to the other.

SHORT-HORNS TO CALIFORNIA.—We learn that the Messrs. HAINES of Elizabeth, New-Jersey, sent by the steamer Illinois, which sailed March 5th, one Short-Horn bull, 2 years old, one bull calf, 6 months old, and two yearling Short-Horn heifers, to California. They were purchased by GEO. H. HOWARD, Esq., of San Francisco. This is said to be the first shipment of blooded cattle to California. The two-year-old bull was owned jointly with JOSEPH MCGRAW, Jr., of Dryden, Tompkins Co., N. Y. They take the Panama route, and are from three to four weeks on the trip.

PLASTER, MANURE, &C.—(*S. P., Greenup Co., Ky.*) Plaster or gypsum often affords some benefit to corn, and is usually applied by throwing a small handful (a spoonful or two) on the hill while the corn is small. On such soils as are decidedly benefitted, we would recommend another dressing of half a bushel to a bushel an acre, broadcast. We cannot say what amount of benefit would be derived from the plaster, as trial can only determine it. We would not recommend its application to wheat this spring—it will be more likely to make the grass and weeds grow than the wheat itself. Rock-plaster, which requires to be ground in a plaster-mill before it can be applied to land, may be distinguished by its *softness*, from limestone, and by not effervescing with acids. It may be cut freely with a knife, and by using a knife first on limestone and then on plaster, the difference is very obvious. It is proper to remark that there are sometimes varieties of clay slate, soft like plaster, but one who has examined both, will not confound them. If our correspondent will heat a portion of the pulverized rock, which he wishes to examine, for some hours nearly to redness, and then mix it to a paste with water, it will harden, if plaster, in a few minutes, or *set*—this he may regard as a sure indication of its genuineness, and it will distinguish it from all other substances. This is the way in which the plaster of Paris used in moulding into any desired forms—and which is the same thing as gypsum, except in being whiter in color than most American gypsum.

If our correspondent has plenty of yard manure, he need not look further for guano, or more costly and less certain applications.

Vetch seed may be obtained of J. M. THORBURN & Co., Seedsmen, New-York.

New Chinese Northern Sugar Cane Seed.

JUST RECEIVED one hundred pounds (fresh and genuine) which will be sold in lots to suit purchasers. All inquiries or orders by mail promptly answered.

W. THORBURN, Seedsman,
March 26—w2tm1t 492 Broadway, Albany, N. Y.

PLATTSBURGH NURSERIES.

THE subscriber offers for sale a superior stock of HARDY FRUIT TREES, &c., suitable for orchards and gardens, propagated with great care, consisting of APPLES and PEARS, (both Standard and Dwarf,) Plums, Cherries, Grapes, Currants, Raspberries, Gooseberries, Strawberries—also ORNAMENTAL TREES and SHRUBS, ROSES, HEDGE PLANTS, ASPARAGUS and RHUBARB PLANTS. Priced Catalogues will be sent to all applicants.

Also Yellow Locust Seed at 75 cents per pound.

JOHN W. BAILEY, Proprietor.
Plattsburg, N. Y., March 19—w&m1t*

THE CONCORD GRAPE.

THE originator of this new grape offers for sale a fine stock raised from the parent vine. It has fully sustained its reputation as

The Best Grape for Out-door Culture,

having survived the two last severe winters unharmed, when the Isabella, Catawba, and other grapes were killed to the ground.

For SIZE, BEAUTY, QUALITY and BEARING, it is unsurpassed. It is perfectly hardy, and has never been affected by rot or mildew, while it ripens three to four weeks before the Isabella and two weeks before the Diana, in the garden of the proprietor.

"We tested at our late State Fair, several specimens of this new Eastern Grape, and were agreeably disappointed in it. The berries are from a fourth to a third larger than either the Isabella or Catawba; the bunches are larger and heavier: the vine is far hardier than any other of Northern origin; and the fruit ripens from three weeks to a month earlier."—[HORACE GREELY, New-York Tribune, Oct., 1854.

"We have received from E. W. Bull, of Concord, a fine specimen of the Concord Grape. This new seedling is attracting much attention among horticulturists, and deservedly. It is a large and handsomely clustered grape, and the flavor of the specimens we have tasted is superior to that of the Isabella."—[Boston Journal, Sept., 1854.

"I regret the Grapes I received from you did not keep longer. They gave the utmost satisfaction, and every good judge of fruit said they were DECIDEDLY BETTER THAN THE ISABELLA."—[J. D. INGERSOL. Ilion, N. Y., Oct., 1854.

"The most beautiful" of the new hardy grapes "is undoubtedly the Concord."—[J. F. ALLEN, Report Mass. Hort. Soc. 1854.

The testimony in favor of this Grape is certainly very full and from well-known horticulturists. It may be pronounced large, handsome, and excellent.—[Horticulturist, Dec., 1855.

Opinions of the Massachusetts Horticultural Society:

1852, Sept.—"Seedling grape from Mr. Bull, large, handsome and excellent."

1853, Sept.—"Fully equal to specimens last year, and proves to be a remarkably early, handsome, and very superior grape."

Fine strong plants for sale at $1.50 each—$12 per dozen. Two years old, $2 each—$18 per dozen. Extra three years, $3 each. A LIBERAL DISCOUNT to clubs and the trade.

Address E. W. BULL,
March 19—w&mtf Concord, Mass.

STUDENTS frequently Employ their Mornings, Evenings and Vacations in canvassing—WITH GREAT PROFIT TO THEMSELVES—for our Publications. The most liberal terms, with security against the Possibility of Loss.

Address FOWLER & WELLS,
March 19—w3tm1t 308 Broadway, New-York.

HAY PRESSES.

DEDERICK'S CELEBRATED PARALLEL LEVER Portable and Stationary HAY PRESSES, patented May 16th and June 6th, 1854—which (at about the same cost of transportation as a Railroad Horse Power and Thresher,) are now being forwarded to all parts of the country, and are in every case giving the most decided satisfaction; which (with two men and a horse) are warranted to bale from six to nine tons of hay per day, according to the No. or size of the press—and which are sold for from $100 to 175. For circulars, with full explanatory engravings, and numerous first-class references, apply personally or by mail to WILLIAM DEERING & CO.,
Dec. 11—weow&mtf Manufacturers, Albany, N. Y.

New and Rare Strawberries.

TO SPARE—a few hundreds of the following varieties, which are possessed by BUT ONE OTHER nursery in the country, where (if they are sold at all) the prices charged are 25 per cent. higher than those annexed :

	per doz.	per fifty.	per 100.
Prince's Primate	$ 75	$2.00	$3.00
Prince's Imperial Scarlet,	1.50	4.00	6.00
Prince's Scarlet Magnate,	1.75	5.00	8.00

Also the following kinds :

Longworth's Prolific (genuine, from R. G. Pardee, author of Treatise on the Strawberry)—price 50 cts. per doz. —$1.50 for 50—$2.50 per 100.

McAvoy's Superior, Scott's Seedling, and Myatt's Prolific Hautbois, 50 cts. per dozen—$1.50 for 50—$2 per 100.

Applications accompanied by the CASH will be attended to in the order of their reception. H. A. MISH,
Harrisburg, Pa.

When desired, plants will be sent by mail, enclosed in oiled silk, if two postage stamps are sent for each dozen ordered. April 1—m1t*

HIGHLAND NURSERIES,

Newburg, N. Y.

Formerly A. J. DOWNING & Co.

THE subscribers in calling the attention of the public to their stock for spring planting, beg leave to say that at no former time have they been so well prepared to meet the constantly increasing demand for trees, &c., &c., as at present.

In the Department of Fruits, their stock of trees of Apples, Pears, Cherries, Peaches, Apricots, Nectarines, &c.; also, strong plants of Grape-vines, Gooseberries, Currants, Raspberries, Strawberries, &c., &c., as well as all the smaller and miscellaneous fruits, are of the best quality as regards size and thriftiness, and include all the best varieties in cultivation.

THE ORNAMENTAL DEPARTMENT is also full and complete in all the leading varieties of Evergreen and Deciduous Trees and Shrubs, many of which are of extra size, suitable for tree planting, or giving immediate effect around newly erected residences.

A fine collection of Roses ; also Hedge Plants, Asparagus and Rhubarb Roots, &c., &c., and all articles that are usually to be had in the trade. For further particulars see Catalogue, a copy of which will be mailed to applicants on inclosing a postage stamp to prepay the same.

Orders by mail promptly attended to, and packed in the best manner, and forwarded as directed, but after delivery to forwarders at the risk of purchasers. A. SAUL & CO.
Newburg, March 1—w1tinM2tAm1t.

HOW to Do Good and "Get Paid for it."—Take an Agency for our publications. The terms are such there can be NO POSSIBILITY OF LOSS. EVERY FAMILY will be glad to obtain some of them. For particulars address
FOWLER & WELLS,
March 19—w3tm1t 308 Broadway, New-York.

PEAR TREES.

250,000 PEAR TREES, Standards and Dwarfs ; the finest lot ever raised. Those who have been in the habit of importing, would do well to look at these. Among the varieties are the Rostiezer, Beurre Langelier, Beurre d'Anjou, Beurre Clairgeau, and other new ones. These are in a fresh and thrifty condition, and much more valuable than imported trees.
GEO. W. WILSON,
April 1—m1t.* Malden, Mass.

It Pays Well!—Farmers look Here!!

AN ACRE of good soil will yield from five to six hundred brooms. There is a great demand for them. The seed more than pays for raising the corn. The brooms can be made when there is no out-door work! We give plainly printed instructions, by which we GUARANTEE that any one can make from 30 to 40 brooms per day. The necessary fixtures can be made anywhere, at a very TRIFLING EXPENSE. Success insured or the money returned. Thirty-five cents in postage stamps or in silver, wrapped in a slip of paper in an envelope well pasted, will go safely at single postage, and will procure the above valuable information—worth $20 to any farmer.
Address FISHER & CO.,
Selinsgrove, Snyder Co., Pa.

N. B. Best mode to raise the corn also given. We wish it distinctly understood that this is not a catch-penny advertisement. We would not so compromise our sense of honesty and justice as to swindle any person out of a cent. We hold ourselves responsible for what we say.
April 1—m1t

KINDERHOOK NURSERY.

THE Proprietor of this well-known Nursery would inform his friends that he has on hand a large stock of very fine FRUIT, ORNAMENTAL and EVERGREEN TREES, ROSES, &c., which will be sold at very low prices.

A Catalogue will be sent to any one applying by mail or otherwise.

Also, a large stock of OSIER WILLOWS, of the different varieties. Cuttings furnished at very low prices.
Address JOHN H. CORNING,
March 19—w6tm2t Valatie, Columbia Co., N. Y.

Chufas or Earth Almonds.

I CAN still supply tubers of the Earth Almond for planting, at 30 cents per hundred—sent by mail post paid, on the reception of price. H. B. LUM.
Sandusky, Ohio, March 26—w4tm1t.*

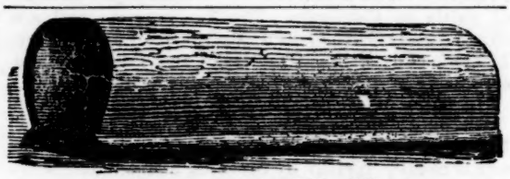
Articles at Lowest Rates.

FRUIT AND ORNAMENTAL TREES, including Evergreens, the finest collection in the Union—700 lbs. Chinese Sugar Cane, and also parcels of 8000 seeds, post-paid, for $1 25. Chinese Imperial Rice-white Potato, the only ones for sale of American growth, $3 per dozen, $5 for 20, and $20 per 100. Imported tubers, uncertain varieties, $1 per dozen—$7 per 100. Osier Willows, eight finest kinds, $2 to $5 per 1000. Lawton Blackberry, $18 per 100. Grapes, Gooseberries, Raspberries, Currrants and Strawberries, at lowest rates. Linnæus and Victoria Rhubarb, $9 per 100. 20,000 Arbor Vitæ for hedges, and up to 8 feet high.

All the best species of Evergreens, of small sizes for Nurseries—all the new varieties of Native Grapes—Tree and Shrub Seeds—Vegetable and Flower Seeds—Evergreen Tree Seeds—Earth Almonds—Yellow and Honey Locust and Osage Orange—Tobacco, Madder and Teazel Seeds.

Priced Catalogues of every department sent post-paid to applicants who enclose stamps.
WM. R. PRINCE & CO.,
March 26—w4tm1t* Flushing, N. Y.

CLERGYMEN, Teachers and others, may add to their present incomes, and do great good at the same time, by taking an Agency for our new and useful publications. For particulars address FOWLER & WELLS,
March 19—w3tm1t 308 Broadway, New-York.



Appleton's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Willson's Nursery.

HORSE SHOE TILE 14 INCHES LONG.

PRICES—4½ inches calibre, $18 per 1000 pieces—3½ inch. $15 per 1000—2½ inches, $12 per 1000.

SOLE TILE 14 INCHES LONG.

4 inches calibre, $40 per 1000—3 inches, $18 per 1000—2 inches, $12 per 1000.

THE subscriber having enlarged his works, is now prepared to furnish Drain Tile of the various patterns and prices. Also large Tile for small streams and drains about dwellings, &c., at $4 $6, and $8 per 100 pieces. He warrants his Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices ; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. Merchants', 71 Quay-st., Albany, near the Steamboat Landing.

Full directions for laying Tile will be sent free to those addressing the subscriber.

He would only add that Tile from his establishment obtained the first prizes at the Albany county and N. Y. State Fairs. Practical drainers furnised if required.

Orders from all parts will be thankfully received and promptly attended to. Address JOHN APPLETON.
195 Washington-st., Albany, N. Y.
March 26—weow8tm3m.

SURE Pay and no Risk.—Pleasant and Profitable EMPLOYMENT may be had by enterprising persons by addressing FOWLER & WELLS,
March 26—w3tm1t 308 Broadway, New-York.

New-York State Ag. Society.

Premiums on Farms—1857.

Grain Farms,..... $50 and $30.

Dairy and Grazing Farms,..... $50 and $30.

☞ Competitors are desired to give notice to the Secretary before 1st July, so that the farms can be visited by a committee appointed for that purpose.

FIELD CROPS.—Competitors should obtain the regulations of the Society, so as to have their statements properly prepared. H. Greely's Premium on one acre of carrots is continued. Regulations will be furnished on application to the Secretary, and also a list of premiums for 1857. Agricultural Rooms, Albany, March 2, 1857.

March 5—w3tm1t. B. P. JOHNSON, Sec'y

SUPERB VERBENAS.

DEXTER SNOW, VERBENA FLORIST, Chicopee, Mass., will take pleasure in offering to the public the ensuing April, the largest and most superb collection of this splendid flower ever offered in America, numbering between 300 and 400 named varieties, and including ALL THE REAL GEMS in cultivation; among which may be found Brilliant de Vaise and Lord Raglan, the two best Verbenas yet out; the former a rich crimson scarlet with light eye—the latter a bright cherry scarlet, with large lemon eye, splendid color; both have vigorous foliage with habit much like the far-famed Defiance—Imperatrice Elizabeth, a beautiful Vaise variety, with elegant lanceolate foliage, quite distinct from any other Verbena—Alice, clearest white, with bright violet eye, a perfect gem—Arsine Bougard, peach lilac, purple eye, very showy—Carolina, Francis Rosseau, rose edged with white—Cærulean Orb, fine blue purple—Hiawatha, very dark—Kurtz Defiance, the best light colored variety—King of Scarlets, very dazzling—Morning Star, Prince of Wales, Empress of France, Iris, Samoset, a fine, pure white—Beauty of Bay Ridge, Rachel, &c.

Also the following new seedlings: Metropolitan, a rich carmine purple, pip and truss large, foliage vigorous, habit fine; Helen, lavender, with rose crimson center, large and fine—Gen. Walker, a fine reddish crimson; also Mrs. Thorburn, a rich purplish blue, with distinct light eye, habit superb in every respect—this is believed to be the best blue yet out, and gave great satisfaction wherever sent; King of Purples, very large and EXTRA FINE; Miss Hensler, a superb white—stands the sun admirably; the three last named are seedlings sent out by the subscriber last season, and have proved themselves worthy of extensive cultivation. In the collection may be found a large stock of FRAGRANT and pure white varieties.

For the accommodation of those not acquainted with the different varieties, the subscriber has selected a large number of choice ones, and arranged them in packages of 12, 25 and 50 plants each; Package No. 1 will embrace 13 first class varieties, including two novelties as extra first-class, and two fragrant varieties, for $1.75. Package No. 2, twenty-five first-class varieties, including four novelties and the fragrant varieties for $3. Package No. 3, fifty varieties, including six novelties and the fragrant varieties for $5. In Packages Nos. 4, 5 and 6, (each containing 25 varieties for $3,) some one of the three leading colors predominate; in No. 4 scarlet will be the leading color—this package will be found admirable for lawns, as the scarlet colors will contrast finely with the green grass. In package No. 5 purple will be the most prominent color—in No. 6 maroon; yet in no case are these colors used to such an extent as to give the bed or mound the appearance of too much sameness, other colors being added sufficient to produce a pleasing effect. The above arrangement will be found very convenient and it is believed quite satisfactory to the purchaser, as the packages include the best varieties in cultivation, arranged with particular regard to the blending of colors. Those ordering plants have only to enclose the money and number of package desired, without being obliged to write off a list of names; for description of varieties included in the above packages see Descriptive Catalogue now ready, and will be forwarded to all making application AND ENCLOSING STAMP.

Purchasers will please bear in mind that the subscriber devotes his entire time and attention to the EXCLUSIVE CULTURE and IMPROVEMENT of the Verbena. No other plant whatever, is sold from his establishment—this enables him to carry this particular branch of floriculture to greater perfection than would be the case were he to cultivate many species of plants. All orders enclosing CASH promptly and faithfully attended to.

Address DEXTER SNOW,

March 19—w1tm1t* Chicopee, Hampden Co., Mass.

A FAIR Chance.—Clerks in Country Stores, Foremen in Manufacturing Establishments, Postmasters, Hotel-keepers, Steamboat Captains, Railway Conductors, Travelers—both men and women—School Teachers, Students, Farmers, Mechanics, Lawyers, Doctors, Clergymen: ALL are glad to have our books, AGENTS for every neighborhood supplied on the most liberal terms, and SECURED AGAINST THE POSSIBILITY OF LOSS. For full particulars address FOWLER & WELLS,

March 19—w3tm1t 308 Broadway, New-York.

Please to Read This.

IF YOU WANT EMPLOYMENT, send at once for Mr. SEARS' CIRCULARS TO BOOK AGENTS. Our publications are considered among the most saleable. Address (postpaid) ROBERT SEARS, Publisher,

March 19—w6tm6t No. 181 William-st., New-York.

The Third Annual Sheep-Shearing

AND EXHIBITION OF STOCK,

WILL be held at the Elgin Spring House, near Vergennes, Vt., on the 10th and 11th of June. There will also be an auction sale of choice stock. The trotting course will be in good order, and premiums will be given on trotting horses and other stock. All are invited to exhibit their stock for premiums and sale.

SOLOMON ALLEN,

March 26—w1tm2t Vergennes, Vt.

ALBANY SEED STORE.

Established in 1831.

THE subscriber again offers at wholesale and retail, his annual assortment of genuine GARDEN, FIELD and FLOWER SEEDS, growth of 1856, consisting in part of the following desirable articles:

The NEW NORTHERN CHINESE SUGAR CANE, in packages at 25 cents—by mail 34 cents—also a treatise on the Chinese Sugar Cane: its history, mode of culture, manufacture of the sugar, &c., &c. Price 25 cents—by mail 31 cents.

KING PHILIP or Improved Brown Corn.

New CHINESE POTATO—(Dioscorea Batatas) native roots, the lot offered by the subscriber having been raised in the County of Albany. These are fine HEALTHY roots, and offered at $3 per dozen.

CHUFAS or Earth Almonds, 25 cts. per dozen.

JAPAN and OREGON PEAS—CHRISTINA MUSK MELON (true), 50 cts. per ounce—NEW ORANGE WATERMELON, 25 cts. per package, as also all the most desirable varieties of Water and Muskmelons.

Sweet German Turnip, 12½ cts. per ounce.

Tobacco Seed of varieties—Early Cabbages, Cauliflowers, Brocolis, Tomatoes, Celery, Cucumbers, Egg Plant, Lettuces, Turnips, Peppers, Radishes, and Herb Seeds and Bird Seeds of all sorts.

Garden and Field Peas of all sorts—GARDEN BEANS of all sorts.

SWEET or SUGAR CORN for the Garden—of sorts, viz: Darling's EXTRA Early, Early Sweet, Early California, Gigantic Constantinople, (very large and fine,) Mammoth Sugar or Large Late, Stowell's Evergreen and Old Colony.

White and Yellow INDIAN CORN of the finest sorts for the Field.

MILLET SEED, Shaker Long-brush Broom Corn, Lucerne or French Clover, White Dutch Clover, Red Clover and Timothy, Red-Top or Herd's Grass, Orchard Grass and Mixed Grass Seeds for Lawns, English Rye Grass, Spring Vetches or Tares, Sun Flowers.

Best Improved Ruta Bagas and other Turnips—Long Orange, Large White and other Carrots—Large Red and Yellow Globe Mangel Wurtzel—White French and Yellow German Sugar Beet—Honey Locust, Buckthorn and Osage Orange for live fences—Yellow Locust for timber and Locust posts, with a large assortment of choice Flower Seeds, of which a package of 20 choice named varieties will be sent by mail for $1, AND POSTAGE PAID. Spring planting bulbs, consisting of Amaryllis, (Jacobean Lilies,) Lutea and Formosissima.

Gladiolus Floribundus, Gandavensis, and Psittacinnus Mexican Tiger Flower, Red and Yellow—Tuberoses, and Madeira Vines. Double Dahlias of the choicest named varieties at $3 per dozen. The best books on Poultry, Kitchen Gardening, Cultivation of Fruit Trees and Flowers.

Orders by mail (be they ever so small) promptly attended to, and Catalogues of my whole collection forwarded by mail, free of charge, to applicants.

WILLIAM THORBURN, Seedsman, &c.,
492 Broadway, Albany, N. Y.

☞ Small packages of Seeds carefully enveloped and safely forwarded by mail. March 19—w10tm2t

"THINK OF LIVING."

Our Illustrated Family Journals.

LIFE ILLUSTRATED—a first-class Family Newspaper, designed to encourage a spirit of Hope, Manliness, Self-Reliance, and Activity among the people; to illustrate Life in all its phases. A paper which ought to be read by every family in the land. Weekly—$2 a year, or $1 for half a year, by FOWLER & WELLS, No. 308 Broadway, New-York.

THE AMERICAN PHRENOLOGICAL JOURNAL is devoted to the science of human nature. It aims to teach man his powers, duties and relations; how to make the most of himself, and thus secure the highest mental and physical well-being. Monthly, in handsome Quarto form, beautifully illustrated, at $1 a year.

THE WATER-CURE JOURNAL is devoted to Physiology, Hydropathy, and the Laws of Life and Health—with Engravings illustrating the Human System—a guide to Health and Longevity. $1 a year.

☞ For Three Dollars, in advance, a copy of LIFE ILLUSTRATED, the PHRENOLOGICAL JOURNAL, and the WATER-CURE JOURNAL, will be sent a year to one address. Now is the time to subscribe. Sample numbers gratis.
March 5—w4tm2t

SYRACUSE NURSERIES,

Thorp, Smith & Hanchett, Proprietors.

THE present stock of our establishment being very large, we are prepared to meet the demands and expectations of applicants with our usual fullness and success. We offer, among other matters, the following

PARTICULAR INDUCEMENTS

APPLE TREES—Eight to ten feet high, mostly fine winter varieties, many of them having borne fruit. Price (assorted by us and the full number taken,) 50 for $7; 100 for $12.50. A rare chance for a cheap and valuable orchard. These trees are offered at this low rate, as they stand upon ground that must be cleared.

PEAR, CHERRY AND PLUM TREES—A limited number, of bearing age. Price $1 to $2.

PEAR TREES, STANDARD AND DWARF—Correspondents write thus of parcels from the same lot:—"The Pears are extra-fine and attract a great deal of attention." Another: "They are the finest I have ever received." Another: "I must say they are the finest lot of trees I ever saw." Another: "I cannot grow such pears." Another. "They were the best lot of Standard Pears for the price that I ever purchased this side the Atlantic."—Selected. Dwarf, $30—Standard, $35 per 100.

DWARF CHERRY TREES—One year old, exceedingly fine mostly Dukes and Morellos; $2.50 per doz., or $16 per 100.

DWARF APPLES—One year old; $2 per doz. or $12.50 per 100.

GRAPES—Catawba and Isabella, two years old, $12 per 100. Clinton, 1 year old, $10 per 100.

CURRANTS—Red and White Dutch, $1; Red and White Grape, Cherry and Fertile de Palluau, $2; Victoria and Black Naples, $1.50 per doz.

RASPBERRIES—A very large stock of Antwerp, North River Red, Fastolff, Knevits' Giant, and Large Fruited Monthly, at $3 per 100, assorted; Cushing and Wilder, at $2 per doz.

ASPARAGUS—One year old plants, remarkably strong; $1 per 100 or $4 per thousand.

OSAGE ORANGE—One year old, fine; $3 per 1000; stock large.

ORNAMENTAL TREES—Six to ten feet high: Silver Abele, $3 per doz.; Mountain Ash, American and European, Horse Chestnut, Black Walnut and Silver Maple, each $4 per doz.; American Elm, $6 per doz.; Tulip Tree (3 feet) $3 per doz.

EVERGREENS—Arbor Vitæ, of luxuriant growth, 2 feet, $1.50 per dozen; American Balsam Fir, 2 feet, $2.50 per doz.; Black Spruce, 2 feet, $2.50 per doz.; Scotch Pine, 1 to 2 feet, $2 per doz.; Hemlock, 1 to 2 feet, $1.50 per doz.; Norway Spruce, 1 to 1½ feet, $1.50 per doz., $10 per 100.

For full descriptions and prices of our general stock, see

OUR CATALOGUES:

No. 2. Description of Fruits; No. 3, of Ornamental Trees, Shrubs, Roses, &c.; No. 4, of Dahlias, Green-House and Bedding Plants; No. 5, a Wholesale Catalogue. Also, a Supplemental Catalogue of the Ornamental department, and a Circular on the Augusta Rose, forwarded on the receipt of the postage, viz: a one cent stamp for each.
Syracuse, March 5—w6tm1t

SPLENDID NEW PLANTS.

A PRICED CATALOGUE of the largest collection of European novelties in the country, including many of remarkable excellence, will be sent to applicants. Also a full descriptive general Catalogue of FRUIT and ORNAMENTAL TREES, GREEN-HOUSE PLANTS, &c., will be sent upon the receipt of a post-stamp.
Address W. C. STRONG,
Feb. 26—w6tm2t Nonantum Hill, Brighton, Mass.

LEGHORN FOWLS

FOR SALE.—A few pairs of choice LEGHORN FOWLS—price $3 per pair, delivered at Rail Road—address JOHN A. CASTERLINE,
March 12—w&m1t* Dover, N. J.

Fruit Trees! Fruit Trees!

THOMAS & HERENDEEN, of Macedon, Wayne Co., N. Y., offer for sale a choice collection of Fruit Trees, suitable for orchards and gardens, propagated with great care from BEARING TREES, and consisting of

Apples, Peaches, Pears, Cherries, Plums,

And the smaller fruits generally, as GRAPES, RASPBERRIES, CURRANTS, GOOSEBERRIES, STRAWBERRIES, &c., of the most valuable varieties grown in the Northern States; and a fine supply of Ornamental Trees, Shrubs, and showy Perennial Plants.

☞ Careful selections for orchards and gardens, to insure an early, medium and late supply of delicious fruit, will if desired be made by the proprietors, without additional charge purchasers merely giving the number of trees.
Feb. 26—w6tm2t

King Philip or Brown Corn.

I WILL pack and deliver to the R. R. the above variety of seed corn for $1.25 per bushel. Address
JAS. W. GRAY,
March 1—m3t Ball's Pond, Conn.

"Chinese Sugar-Cane Seed."

WE HAVE at last succeeded in getting a supply of the pure "SUGAR-CANE SEED," which is warranted, and we will supply sufficient to plant one-fourth of an acre for $1. All orders, if by mail, must be accompanied by the money and post-paid. The following is a statement of the product of this seed:

Yield of fodder per acre, 1100 to 1300 lbs.
" seed " 25 bushels, 36 lbs. to the bush.
First trial of mill, 70 average canes gave 20 qts. of juice.
Those wishing this Seed will please send their orders soon, to be sure of getting it, as the supply is limited.
RICHARD H. PEASE.
Feb. 19—w10tm2t Nos. 369 & 371 Broadway, Albany.

ISABELLA AND CATAWBA GRAPE VINES,

OF PROPER AGE FOR FORMING VINEYARDS,

CULTIVATED from, and containing all the good qualities which the most improved cultivation for over sixteen years, has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years, as will enable them to cultivate the Grape with entire success, provided their locality is not too far north.

All communications addressed to R. T. UNDERHILL, M. D., New-York; or Croton Point, Westchester County, N. Y., will receive attention.

The additional experience of the four past seasons gives him full assurance that, by improved cultivation, pruning &c., a crop of good fruit can be obtained every year, in most of the Northern, and all of the Middle, Western and Southern States.

N. B. To those who take sufficient to plant six acres, as he directs, he will, when they commence bearing, furnish the owner with one of his Vine-dressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the Vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor.

Also, APPLE-QUINCE TREES, (which are sometimes called the Orange Quince,) for sale as above.
Feb. 12—w&m R. T. UNDERHILL, M. D.

"EVERY FARMER SHOULD OWN THEM."

ALLEN

ON THE DISEASES OF DOMESTIC ANIMALS.

THIRTY-FIRST THOUSAND.

PRICE 75 CENTS, and sent free of Postage, on receipt of price.

"Its greatest worth is as a 'complete Farrier.'"—*Farmer and Mechanic.*

"It ought to be in every family where Dairying is carried on."—*Worcester Transcript.*

"Worthy of a place in every Farmer's Library."—*Jeffersonian.*

"Just what is needed by every good farmer."—*L. I. Farmer.*

"A very excellent book on Domestic Animals."—*Maine Farmer.*

"A most admirable practical work for every-day use."—*Index.*

"The work ought to be in the hands of every Planter."—*N. O. Delta*

"When such men as R. L. Allen take up the pen, something flows from it which does his fellow-men good."—*Iowa Advocate.*

"Here is a Book for the Million, written by a Gentleman of Science and Experience."—*Newburyport Watchman.*

ALLEN'S (R. L.) AMERICAN FARM BOOK.

The American Farm Book: or, a Compound of American Agriculture, being a Practical Treatise on Soils, Manures, Draining, Irrigation, Grasses, Grain, Roots, Fruits, Cotton, Tobacco, Sugar Cane, Rice, and every Staple Product of the United States; with the best methods of planting, cultivating, and preparation for market. Illustrated by more than one hundred engravings. By R. L. Allen.

One of the most complete Books upon American Agriculture that has yet been published. Price ONE DOLLAR. Sent free of Postage. Address

C. M. SAXTON & CO.,
March 5—w&m1t 140 Fulton-st., New-York.

OSIER WILLOWS.

THE subscribers are General Agents for GEO. J. COLBY, patentee of the machine for peeling willows, and will sell the best kind of Osiers on the most liberal terms, nd give a Circular containing full directions for cultivating, market, &c., FREE to all. Address CARMI OSGOOD, Westford, Vt., or REUBEN OSGOOD, Fremont, Lake Co., Ill. Feb. 5—w8tm2t*

Genuine Northern Muscadine Grape.

THE subscribers have twenty-five years experience in proving the most noted varieties of native Grapes, being over forty different kinds, embracing the late new varieties.

Among these the Genuine Northern Muscadine Grape has proved for fifteen years past in point of profit, either as a wine or table grape, as ten to one of any other kind.

We often grow in our Society at Lebanon, hundreds of bushels of this grape in a season, six quarts of which will produce (as we make it) one gallon of pure wine. The fruit is worth from 18 to 25 cents per pound on the vine.

We now offer a few thousand large and vigorous roots of this Genuine Northern Muscadine Grape for spring planting. Our experience proves this to be one of the most profitable grapes for the Northern and Western States.

Price of Roots—One to Five Dollars. Terms—Cash on delivery of roots. Liberal allowance made to those who purchase in large quantities for vineyards. Five per cent. discount when cash accompanies the order. The public are cautioned against the gross imposition of unprincipled persons vending grape roots under the above name which are worthless, which has been much practiced in the Western States.

We warrant none genuine but such as are purchased of us or our legally appointed agents, who can show proper authority.

This Grape is a new variety which we produced from the seed of the native white grape and is of course as hardy as our currant bushes or forest trees, and uniformly FOUR WEEKS earlier than the Isabella or Catawba.

The money must accompany all orders for this Grape, with plain directions how they shall be sent—whether by Express or otherwise. By clubbing, ten or twenty roots can be sent in one package, to any part of the United States as cheap as one.

JESSE LEWIS,
P. STEWART.
March 12—w&m1t New-Lebanon, Col. Co., N. Y.

SUGAR-CANE SEED!

EMERY BROTHERS have, at much expense and trouble, obtained a supply of GENUINE SEED of the **Chinese Sugar Cane**, or "SORGHUM SACCHARATUM," successfully grown, fully matured and sure to vegetate, from Mr. R. PETERS, of Georgia, which they will supply in strong linen packages, with full directions for its culture, for ONE DOLLAR, each containing sufficient quantity for one-fifth of an acre. All orders should be accompanied with TWELVE CENTS, or stamps, if to be sent by mail. Pamphlets, containing a compilation of reliable information, experiments and success of the Plant, since its introduction in this country, furnished gratis (postpaid) upon receipt of a three-cent postage stamp.

EMERY BROTHERS,
Proprietors Albany Agricultural Works,
Jan. 28—w4tm2t 52 State-street, Albany.

SEEDLING POTATOES.

THE subscriber offers the following valuable seedling potatoes for sale. They are the result of the culture of about 5,400 sorts, originated from the seed boll in 1849, '50, '52 and '53, and comprehending many distinct families. During 1853-4, a great number of these varieties were sent out by sale and gift, in connection with the Rough Purple White; such sorts only being sent as up to that time had seemed to promise well. The very dry summers of 1853 and '54 were most unfavorable to many of these young varieties, dwarfing the herbage and deforming the tubers. He has reason to know that similar results, to a large extent, attended their culture in the hands of others to whom he sent them during the same years.

After the culture of these many hundred sorts, under these discouragements, he finds he has a few sorts of superior qualities, such as are sustained by numerous correspondents to whom he sent specimens of them in 1855 and '56. To these few sorts he has given names. They seem now permanently to exhibit such health, yield and shape, as to justify their confident recommendation to the public in the place of the old varieties. The following are his principal valuable sorts:

1. The BLACK DIAMOND, originated from the Western Red in 1852. It is *round, dark purple, a large yielder and hardy.* It ripens with the season.

2. The GARNET CHILI, originated from the Rough Purple Chili in 1853. It is *round, light red, a large yielder, and hardy* beyond all others. It ripens just before the close of the season.

3. The MOUNTAIN JUNE PINK EYE, originated from the Mountain June in 1853. It is *round, white*, with purple streaks, *hardy*, and yielding above all other known sorts. Matures lateish.

These three sorts hold the first rank as medium or lateish ripeners, and have received the highest praise abroad. Besides these I have—

4. The UTICA PINK EYE, very early and moderately hardy. 5. The PALE BLUSH PINK EYE. 6. The OVATE PERUVIAN. These two last are very beautiful, moderately early and moderately hardy. 7. The NEW-HARTFORD. This is lateish. These last four sorts are all white. I have only a few of each, so that they will be given out only in small quantities, and in connection with the first three sorts.

All these seven sorts grow very concentratedly in the hill, and can be dug with rapidity. They are all very white flesh, and not deep-eyed. They all withstand dry weather without dwarfing and drying up. They have all uniformly withstood disease, with the exception of those noted as moderately hardy, though cultivated in soils and seasons in which disease was very prevalent in the old varieties. These varieties will be put in boxes and marked and forwarded to purchasers at FIVE DOLLARS per bushel, *paid in advance*, and at the expense and risk of the purchaser. Fractions of a dollar may be sent in postage stamps.

☞ Those who purchased seedlings of me in 1853 and '54, and failed to secure good varieties, will be supplied with samples of the above sorts GRATUITOUSLY by sending THIRTY-SIX CENTS in postage stamps to defray the expense of boxing and marking.

CHAUNCEY E. GOODRICH,
Utica, N. Y.

REFERENCES.

The following persons, among many others, have sucessfully cultivated the most of the foregoing roots during one or both of the last two years:

Henry Keeler, South Salem; J. Wesley Jones, Chatham; C. L. Kiersted, Kingston; J. J. Thomas, Union Springs; I. D. Ingersoll, Illion; S. D. Hungerford, Adams; Harvey Bradley, Whitesborough; Wm. R. Miller, Marcy; James McIntyre, Fonda; all of N. Y. Yardley Taylor, Loudon Co., Va.: S. C. Stebbins, Long Meadow, Ms.; J. H. Sherrill, Waterloo, Iowa. March 12—

North Devon Bulls for Sale.

THE subscribers offer for sale two pure-bred North Devon Bulls from celebrated herds.

"New Britain 1st," was bred by S. & L. Hurlbut—is two years old, was sired by Albert, an imported bull, (see No. 2 English Herd Book,)—his dam can be traced back to an imported cow from the stock of the Earl of Leicester, Norfolk, England.

"New Britain 2d," will be one year old the first of March next, was sired by New-Britain 1st—his dam is from the stock of the original importation of the Messrs. Patterson of Baltimore. Full and reliable pedigrees can be given.

L. S. & L. R. WELLS,
Feb. 5—w1tm2t New-Britain, Ct.

For Sale,

DURHAM YEARLING BULLS AND HEIFERS—also Calves and LEICESTER SHEEP.

RALPH WADE,
Jan. 1, 1857—m6t Cobourg, C. W.

Durham Bulls and Suffolk Pigs.

I HAVE now for sale three Durham Bulls, viz:

"Locofoco," 35 months old—price $200
"Man Friday," 13 do. do. 350
"Ozark," 4 do. do. 250

Their pedigrees are all in the third vol. of the American Herd Book. "Ozark" is by Mr. Thorne's celebrated Bull "2nd Grand Duke," (12,961).

Also seven pair SUFFOLK PIGS, 12 weeks old—price $30 per pair, boxed, &c.

Full description and pedigrees of the above stock will be furnished by THOS. GOULD,
Feb. 5—w4tm2t Aurora, Cayuga Co., N. Y.

Manny's Patent Mower—Mower and Reaper Combined,

FOR THE HARVEST OF 1857.

THE subscriber has the exclusive agency for these machines, which are universally acknowledged to be the most superior mowers and reapers ever used. They are light, easily handled, and can be carried conveniently on any farmer's wagon—run on two wheels and have no side draft. We offer the following inducements to farmers to purchase these machines:

To any farmer or person selling one of these machines, we will give a copy of the Country Gentleman or Cultivator, or any other Agricultural paper in the United States, or the amount of the subscription in cash.

Retail Prices for 1857.

Single Mower, in Albany, ... $116.50
Combined Machine, ... 126.50

Address RICH'D H. PEASE,
Feb. 5—w2tm2t 369 & 371 Broadway, Albany, N. Y.

The "Excelsior" Patent Railway Changeable Horse Powers, Threshers, Separators, Farm Mills, Saw Mills, and other Machines Propelled by the Horse Power,

ARE extensively manufactured by the subscriber, and are warranted equal, if not superior, to any other machines made in this country. They need only to be tried to satisfy Farmers of their utility and economy, and we hope those wishing such machines will give ours a test before purchasing elsewhere. We offer farmers and others the following inducement to purchase them: To every one buying a Horse Power and Threshing Machine, we will present one year's subscription to any Agricultural journal published in the United States they may want. Local Agents wanted to sell these machines where none are already established. Address R. H. PEASE,
Feb. 26—w10tm2t Albany, N. Y.

ALBANY TILE WORKS,

Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

HORSE-SHOE TILE 14 INCHES LONG—PIECES.

2½	inches calibre,	$12	per 1000
3	" "	15	"
4½	" "	18	"
5½	" "	40	"
6½	" "	60	"
8	" "	80	"

SOLE TILE 14 INCHES LONG—PIECES.

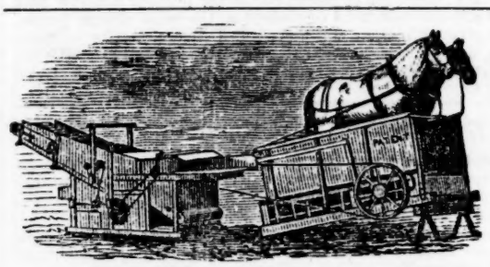
2	inches calibre,	$12	per 1000
3	" "	18	"
4	" "	40	"
5	" "	60	"
6	" "	80	"

Also on hand 6-inch calibre Octagon pipe, $20 per 100, and 8-inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
(Late BABCOCK & VAN VECHTEN,)
Albany, N. Y.

RICHD. H. PEASE, Agent,
Excelsior Ag. Works, Warehouse and Seed Store,
March 1—w&mtf 359 & 371 Broadway, Albany, N. Y.



THE SCHENECTADY AG. WORKS,

Manufacture Improved Railway Horse Powers, Threshers and Separators, Threshers and Winnowers Combined, Clover Hullers, and Sawing Machines.

THE undersigned having been over twenty years engaged in building Horse Powers and Threshing Machines, feel confident from past experience and the numerous testimonials we are receiving from all parts of the country, of the superiority of our Machines, that we can give satisfaction to all who may favor us with their orders. Our HORSE POWERS are made substantial, and so geared that it requires the team to travel only about 1¾ miles per hour, thereby making them suitable to work either horses or cattle on them. Our THRESHERS and THRESHERS AND WINNOWERS, are so constructed as to discharge all the grain and dust through the Machine, and not into the feeder's face as is usual with other kinds. The Thresher and Winnower has a revolving wire separator, which does the work more perfect than can be done any other way.

The SEPARATOR (riddle) has a fork or straw-shaker, which shakes the grain out of the straw as it passes from the Thresher.

We warrant these Machines to suit the purchaser upon trial, or they can be returned and the money will be refunded. G. WESTINGHOUSE & CO.,
March 5—woam&m5t Schenectady, N. Y.

PERUVIAN GUANO,

Superphosphate of Lime, &c.

THE best quality of Peruvian Guano, with Government weight and brand on each bag, by the cargo or in smaller quantities, at the LOWEST PRICE.

SUPERPHOSPHATE OF LIME..Being agent of the largest manufacturers, I can supply a first-rate article at the lowest manufacturer's prices.

BONE-DUST—Coarse and fine ground—also sawings and filings.

POUDRETTE and TAFEU by the barrel.

My warehouse is the LARGEST depot in the United States for the various kinds of FERTILIZERS, all of which are guaranteed of the best and most reliable quality.

AGRICULTURAL AND HORTICULTURAL IMPLEMENTS, FIELD AND GARDEN SEEDS,

A large and complete assortment of all the improved kinds.

MOWING AND REAPING Machines.

R. L. ALLEN,

Feb. 26—weow&mtf 189 & 191 Water-st., New-York.

PERUVIAN GUANO.

NO. 1, Government Brand and Weight, for sale in lots to suit purchasers. Price $55 per ton of 2000 lbs.—in lots of 10 tons, $61 per 2240 lbs. A. LONGETT,

Feb. 26—w4tm2t 34 Cliff-st., (cor. of Fulton.) New-York.

Guano and other Fertilizers.

GENUINE No. 1 Peruvian Guano,
Columbian and Ichaboe Guano,
Super-Phosphate of Lime,
Poudrette, Land Plaster and Charcoal Dust,
Bone Dust of different qualities,

For sale by GEO. W. MAYHER,
No. 197 Water-st., (near Fulton-st.,)
Jan. 28—w8tm3t New-York.

Important to Farmers, Gardeners and Planters!

THE BROOKLYN FERTILIZING Manufacturing Company are now ready to offer their AMMONIATED TAFEU for sale, for the present at the low price of $25,00 per ton. It is a highly efficient fertilizer, prepared from Night Soil, Blood, and Butcher's Offal, received from the city of Brooklyn, under a contract for ten years—therefore consumers can always rely on its strict purity and uniformity, being manufactured under the supervision of a competent Chemist, and it is warranted to contain a very large per centage of Phosphates, Ammonical and Organic Substances, Potash, and other valuable ingredients, as may be seen by the Analysis in our circulars; and is believed to be one of the richest fertilizers ever used. For orders or further information, apply to the office of the company in Brooklyn, E. D., foot of South 11th street, or at 82 Water street, New York.

N. B. Circulars with full information and analysis will be sent by mail to any one requesting them.

March 1, 1857—w&m3m.

TO FARMERS AND GARDENERS.

THE SUBSCRIBERS OFFER FOR SALE 40,000 barrels of their

NEW AND IMPROVED POUDRETTE,

Manufactured from the night-soil of New-York city, in lots to suit purchasers. This article (greatly improved within the last two years) has been in the market for 18 years, and still defies competition, as a manure for Corn and Garden Vegetables, being CHEAPER, MORE POWERFUL THAN ANY OTHER, and at the same time FREE FROM DISAGREEABLE ODOR. Two barrels ($3 worth) will manure an acre of corn in the hill, will save two-thirds in labor, will cause it to come up quicker, to grow faster, ripen earlier, and will bring a larger crop on poor ground than any other fertilizer and is also a preventive of the cut worm; also it does not injure the seed to be put in contact with it.

The L. M. Co. point to their long-standing reputation, and the large capital ($100,000) invested in their business, as a guarantee that the article they make shall always be of such quality as to command a ready sale.

Price, delivered in the city free of charge and other expense:

One barrel,	$2.00
Two barrels,	3.50
Five barrels,	8.00
Six barrels,	9.50

And at the rate of $1.50 per bbl. for any quantity over six barrels.

☞ A pamphlet, containing every information, will be sent (FREE) to any one applying for the same. Our address is THE LODI MANUFACTURING CO.,

Jan. 15—weow8tm4t Office, 60 Cortlandt-st., New-York.

FOR SALE.

NO. 1 Peruvian Guano,
No. 1 Manipulated Guano,
Superphosphate of Lime,
Bone—fine and coarse,
Poudrette, Plaster, &c
Field and Garden Seeds.

A large assortment of the most approved AGRICULTURAL and HORTICULTURAL IMPLEMENTS.

☞ Also the little AMERICAN MOWER and REAPER, the best harvester in the world, at the low price of $100 as a mower—$120 as mower and reaper combined. This machine weighs only 450 lbs., and is warranted. For sale by GRIFFING, BROTHER & CO.,

Feb. 19—w&m4m 60 Cortlandt-st., New-York City.

Superphosphate of Lime,

OF THE BEST BRANDS. For sale by A. LONGETT,

Feb. 26—w4tm2t 34 Cliff-st., New-York.

PERUVIAN GUANO,

In large or small quantities at Lowest Market Price

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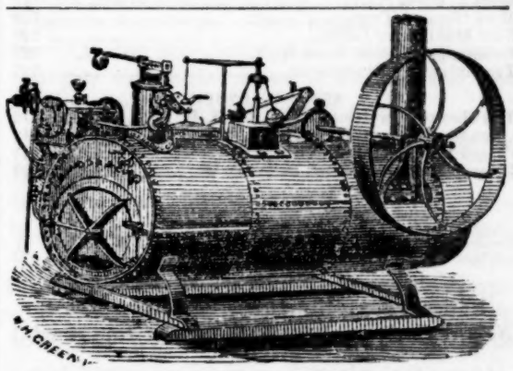

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